

Random Activation of Gene Expression (RAGE)

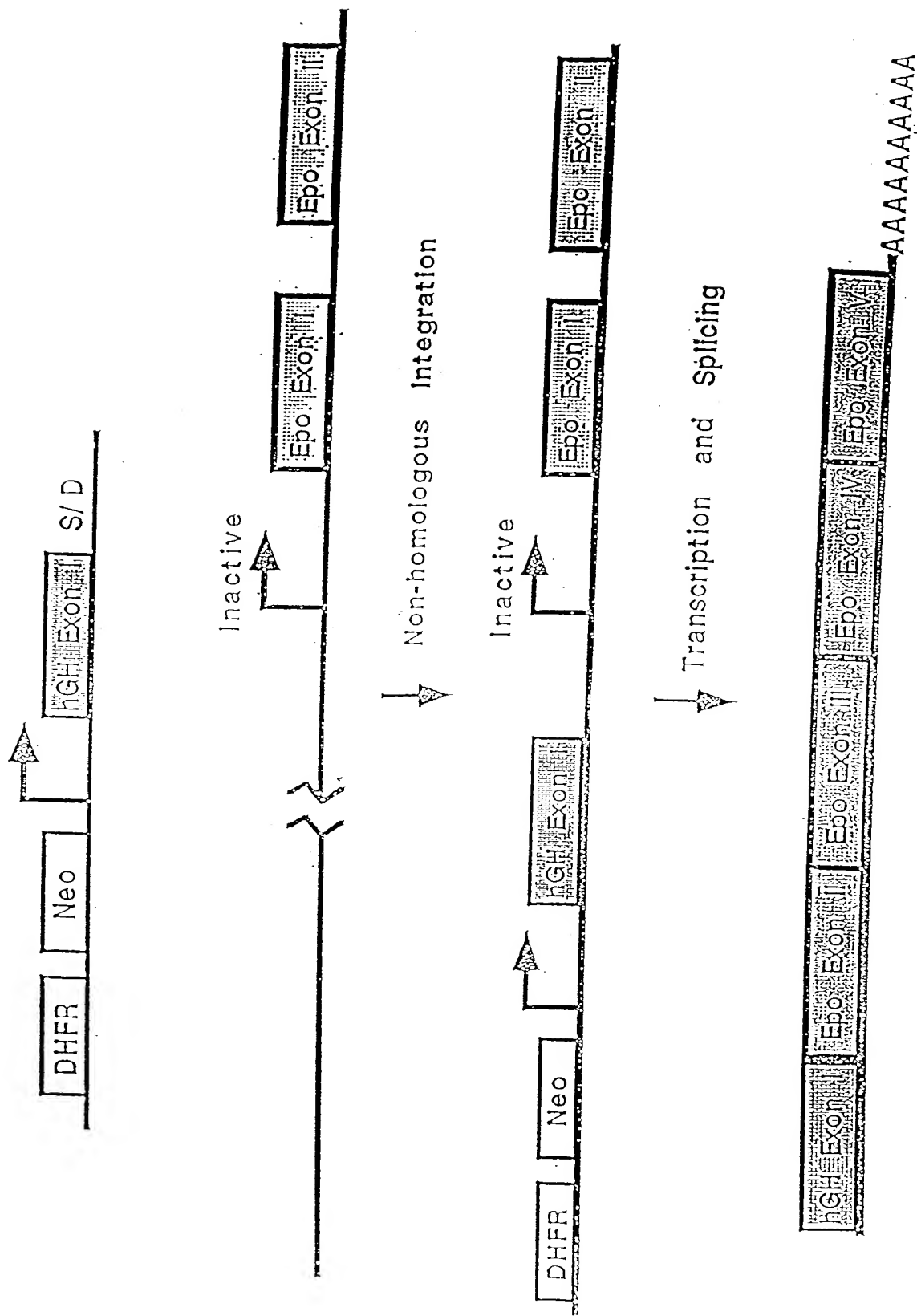


FIGURE 1

Activation Constructs without Translation Start Codons

Construct #



1



2



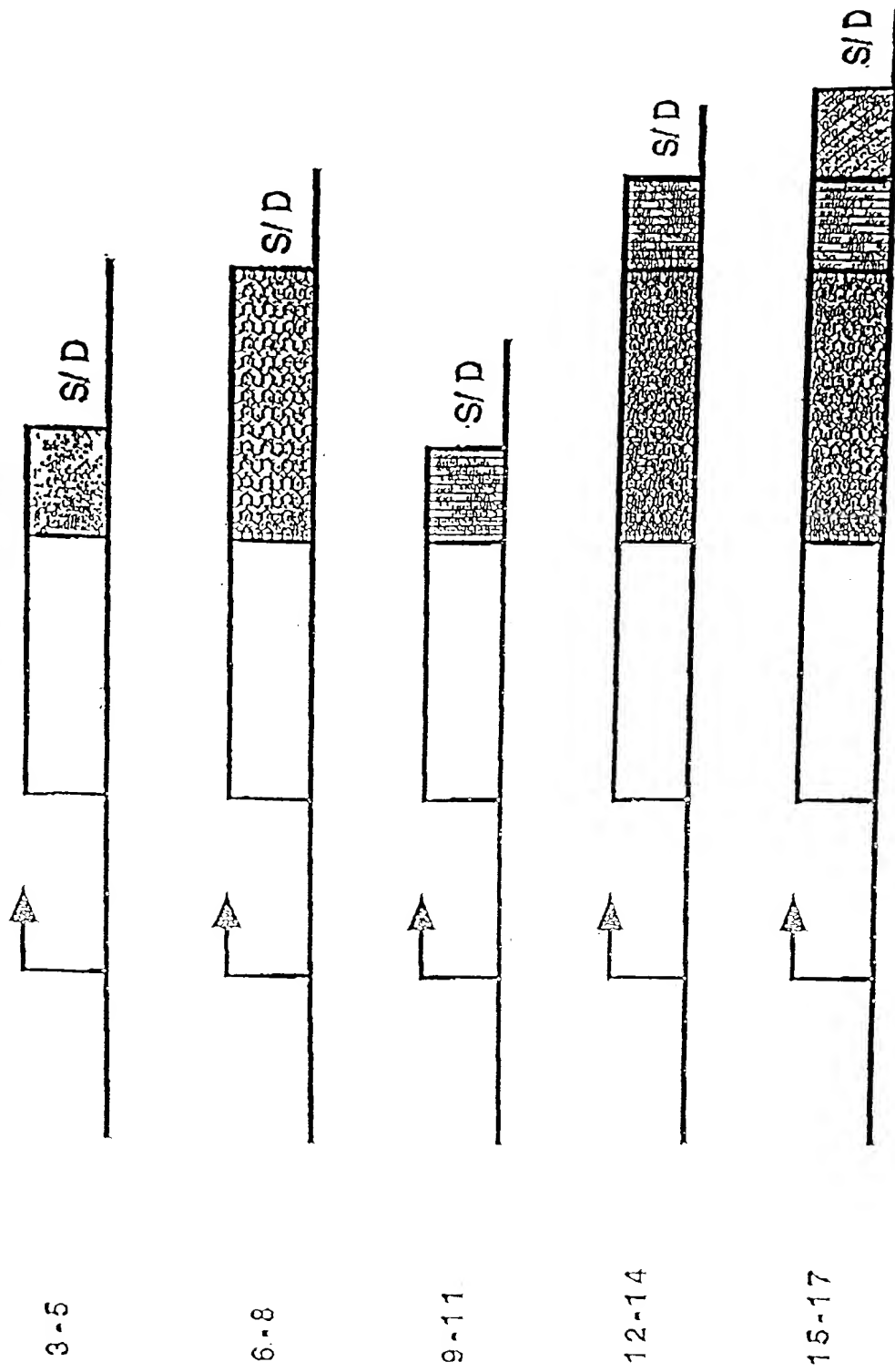
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S/D Splice Donor

Fig. 2

Construct #

Fig. 3



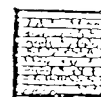
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Translated



Secretion Signal



Epitope Tag



Protease Cleavage Site

S/D Splice Donor

FIG. 4

pRIG-1

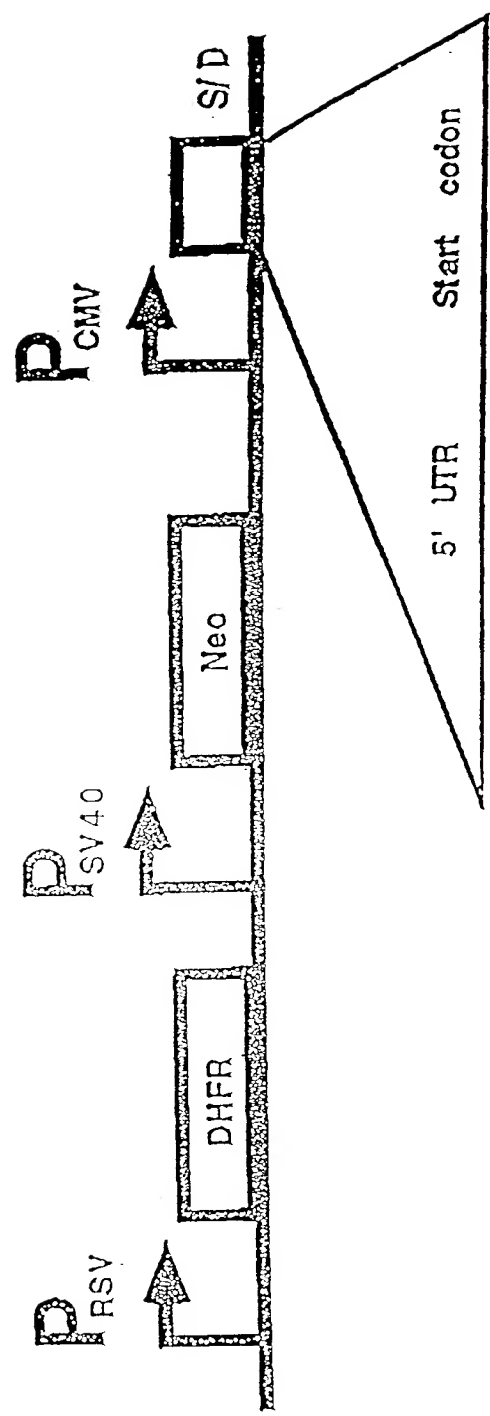


FIG. 4

5'AGATCTTCAATATTGGCCATTAGCCATATTATTCATTGGTTATATAGCATAAATC
 AATATTGGCTATTGGCCATTGCATA
 CGTTGTATCTATATCATAATATGTACATTTATATTGGCTCATGTCCAATATGACCG
 CCATGTTGGCATTGATTATTGACT
 AGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGGAGT
 TCCGCGTTACATAACTTACGGTAAA
 TGGCCCGCCTGGCTGACCGCCCAACGACCCCGCCCATGACGTCAATAATGACG
 TATGTTCCCATAGTAACGCCAATAG
 GGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCACTTGGC
 AGTACATCAAGTGTATCATATGCCA
 AGTCCGCCCCCTATTGACGTCAATGACGGTAAATGGCCCGCCTGGCATTATGCCC
 AGTACATGACCTTACGGGACTTTCC
 TACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGTGATGCGGTTTT
 GGCAGTACACCAATGGGCGTGGAT
 AGCGGTTTGACTCACGGGGATTTCCAAGTCTCCACCCCATGACGTCAATGGGAG
 TTTGTTTTGGCACC AAAATCAACGG
 GACTTTCCAAAATGTCGTAACAACTGCGATCGCCCGCCCGTTGACGCAAATGGG
 CGGTAGGCGTGTACGGTGGGAGGTC
 TATATAAGCAGAGCTCGTTTGTGAACCGTCAGATCACTAGAAGCTTTATTGCGG
 TAGTTTATCACAGTTAAATTGCTAA
 CGCAGTCAGTGCTTCTGACACAACAGTCTCGAACTTAAGCTGCAGTGACTCTCTT
 AATTAAGTCCACCAAGTCTCACTCA
 GTTCCTTTTGCCTCCACCAAGTCTCACTTCAGTTCCTTTTGCATGAAGAGCTCAGAA
 TCAAAAGAGGAAACCAACCCCTAA
 GATGAGCTTTCCATGTAAATTTGTAGCCAGCTTCCTTCTGATTTTCAATGTTTCTT
 CCAAAGGTGCAGTCTCCAAAGAGA
 TTACGAATGCCTTGGAACCTGGGGTGCCTTGGGTCAGGACATCAACTTGGACAT
 TCCTAGTTTTCAAATGAGTGATGAT
 ATTGACGATATAAAATGGGAAAAAACTTCAGACAAGAAAAAGATTGCACAATTCA
 GAAAAGAGAAAAGAGACTTTCAAGGA
 AAAAGATACATATAAGCTATTTAAAAAATGGAAGTCTGAAAATTAAGCATCTGAAG
 ACCGATGATCAGGATATCTACAAGG
 TATCAATATATGATACAAAAGGAAAAAATGTGTTGGAAAAAATATTTGATTTGAA
 GATTCAAGAGAGGGTCTCAAAACCA
 AAGATCTCCTGGACTTGTATCAACACAACCCTGACCTGTGAGGTAATGAATGGAA
 CTGACCCCGAATTAAACCTGTATCA
 AGATGGGAAACATCTAAAACCTTTCTCAGAGGGTCATCACACACAAGTGGACCACC
 AGCCTGAGTGCAAAATTCAAGTGCA
 CAGCAGGGAAACAAAGTCAGCAAGGAATCCAGTGTGAGCCTGTGAGCTGTCCAG
 AGAAAGGGATCCAGGTGAGTAGGGCC
 CGATCCTTCTAGAGTCGAGCTCTCTTAAGGTAGCAAGGTTACAAGACAGGTTTAA
 GGAGACCAATAGAACTGGGCTTGT
 CGAGACAGAGAAGACTCTTGCCTTCTGATAGGCACCTATTGGTCTTACGCGGCC
 GCGAATTCCAAGCTTGAGTATTCTA
 TCGTGTACCTAAATAACTTGGCGTAATCATGGTCATATCTGTTTCTGTGTGAA
 ATTGTTATCCGCTCACAATTCCACA
 CAACATACGAGCCGGAAGCATAAAGTGTAAGCCTGGGGTGCCTAATGAGTGAG
 CTAACCTCACATTAATTGCGTTGCGCGATGCTTCCATTTTGTGAGGGTTAATGC-

Figure 5A

TTCGAGAAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACAAGAAT
 GCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAA
 CCATTATAAGCTGCAATAAACA
 AGTTAACAACAACAATTGCATTTCATTTTATGTTTCAGGTTTCAGGGGGAGATGTGG
 GAGGTTTTTTTAAAGCAAGTAAACC
 TCTACAAATGTGGTAAAATCCGATAAGGATCGATTCCGGAGCCTGAATGGCGAAT
 GGACGCGCCCTGTAGCGGCGCATTA
 AGCGCGGCGGGTGTGGTGGTTACGCGCACGTGACCGCTACACTTGCCAGCGCCC
 TAGCGCCCGCTCCTTTTCGCTTTCTTC
 CCTTCCTTTCTCGCCACGTTTCGCGGGCTTTCCCCGTCAAGCTCTAAATCGGGGGC
 TCCCTTTAGGGTTCCGATTTAGTGC
 TTTACGGCACCTCGACCCCAAAAACTTGATTAGGGTGATGGTTCACGTAGTGGG
 CCATCGCCCTGATAGACGGTTTTTC
 GCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTTGTTCCAAACTGG
 AACAACTCAACCCTATCTCGGTC
 TATTCTTTTGATTTATAAGGGATTTTGCCGATTTTCGGCCTATTGGTTAAAAAATGA
 GCTGATTTAACAAAAATTTAACGC
 GAATTTTAACAAAAATTTAACGCTTACAATTTTCGCCTGTGTACCTTCTGAGGCGG
 AAAGAACCAGCTGTGGAATGTGTGT
 CAGTTAGGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGC
 ATGCATCTCAATTAGTCAGCAACCAG
 GTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCT
 CAATTAGTCAGCAACCATAGTCCCGC
 CCCTAACTCCGCCCATCCCGCCCTAACTCCGCCCAGTTCCGCCCATTTCTCCGCC
 CCAATGGCTGACTAATTTTTTTTATT
 TATGCAGAGGCCGAGGCCGCTCGGCCTCTGAGCTATTCCAGAAGTAGTGAGGA
 GGCTTTTTTGGAGGCCCTAGGCTTTTG
 CAAAAAGCTTGATTCTTCTGACACAACAGTCTCGAACTTAAGGCTAGAGCCACCA
 TGATTGAACAAGATGGATTGCACGC
 AGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTCCGGCTATGACTGGGCACAACAG
 ACAATCGGCTGCTCTGATGCCGCCG
 TGTTCGGCTGTACAGCGCAGGGGCGCCCGGTTCTTTTTGTCAAGACCGACCTGTC
 CGGTGCCCTGAATGAACTGCAGGAC
 GAGGCAGCGCGGCTATCGTGGCTGGCCACGACGGGCGTTCTTGCGCAGCTGTG
 CTCGACGTTGTCACTGAAGCGGGAAG
 GGACTGGCTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCATCTCACCTT
 GCTCCTGCCGAGAAAGTATCCATCA
 TGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTCTGA
 CCACCAAGCGAAACATCGCATCGAG
 CGAGCACGTACTCGGATGGAAGCCGGTCTTGTGATCAGGATGATCTGGACGAA
 GAGCATCAGGGGCTCGCGCCAGCCGA
 ACTGTTCCGCCAGGCTCAAGGCGCGCATGCCCGACGGCGAGGATCTCGTCGTGAC
 CCATGGCGATGCCTGCTTGCCGAATA
 TCATGGTGGAAAATGGCCGCTTTTCTGGATTCATCGACTGTGGCCGGCTGGGTGT
 GGCGGACCGCTATCAGGACATAGCG
 TTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGACCGCTTCC
 TCGTGCTTTACGGTATCGCCGCTCC
 CGATTTCGACGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGCGGGA
 CTCTGGGGTTTCGAAATGACCGACCAAGCGACGCCCAACCTGCCATCACGATGGC-

Figure 5B

CGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAAGA.
 TCCGCGTA-
 TGGTGCACTCTCAGTACAATCTGCTCTGATGCCGCATAGTTAAGCCAGCCCCGAC
 ACCCGCCAACAC
 CCGCTGACGCGCCCTGACGGGCTTGTCTGCTCCCGGCATCCGCTTACAGACAAGC
 TGTGACCGTCTCCGGGAGCTGCATG
 TGTGAGAGGTTTTACCGTCATCACCGAAACGCGCGAGACGAAAGGGCCTCGTGA
 TACGCCTATTTTTATAGGTTAATGT
 CATGATAATAATGGTTTCTTAGACGTCAGGTGGCACTTTTCGGGGAAATGTGCGC
 GGAACCCCTATTTGTTTATTTTTCT
 AAATACATTCAAATATGTATCCGCTCATGAGACAATAACCCTGATAAATGCTTCA
 ATAATATTGAAAAAGGAAGAGTATG
 AGTATTCAACATTTCCGTGTCGCCCTTATTCCCTTTTTTGCGGCATTTTGCCTTCC.
 TGTTTTTGCTCACCCAGAAACGCT
 GGTGAAAGTAAAAGATGCTGAAGATCAGTTGGGTGCACGAGTGGGTACATCGA
 ACTGGATCTCAACAGCGGTAAGATCC
 TTGAGAGTTTTTCGCCCCGAAGAACGTTTTCCAATGATGAGCACTTTTAAAGTTCT
 GCTATGTGGCGCGGTATTATCCCGT
 ATTGACGCCGGGCAAGAGCAACTCGGTGCGCCGCATACACTATTCTCAGAATGACT
 TGGTTGAGTACTCACCAGTCAACAGA
 AAAGCATCTTACGGATGGCATGACAGTAAGAGAATTATGCAGTGCTGCCATAACC
 ATGAGTGATAACACTGCGGCCAACT
 TACTTCTGACAACGATCGGAGGACCGAAGGAGCTAACCGCTTTTTTGCACAACAT
 GGGGGATCATGTAACCTCGCCTTGAT
 CGTTGGGAACCGGAGCTGAATGAAGCCATACCAAACGACGAGCGTGACACCACG
 ATGCCTGTAGCAATGGCAACAACGTT
 GCGCAAACCTATTAACCTGGCGAACTACTTACTCTAGCTTCCCGGCAACAATTAATA
 GACTGGATGGAGGCGGATAAAGTTG
 CAGGACCACTTCTGCGCTCGGCCCTTCCGGCTGGCTGGTTTATTGCTGATAAATC
 TGGAGCCGGTGAGCGTGGGTCTCGC
 GGTATCATTGCAGCACTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAGTTATCT
 ACACGACGGGGAGTCAGGCAACTAT
 GGATGAACGAAATAGACAGATCGCTGAGATAGGTGCCTCACTGATTAAGCATTGG
 TAACTGTCAGACCAAGTTTACTCAT
 ATATACTTTAGATTGATTTAAAACITTCATTTTTAATTTAAAAGGATCTAGGTGAAG
 ATCCTTTTTGATAATCTCATGACC
 AAAATCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGA
 TCAAAGGATCTTCTTGAGATCCTTT
 TTTTCTGCGCGTAATCTGCTGCTTGCAAACAAAAAAACCACCGCTACCAGCGGTG
 GTTTGTTTGCCGGATCAAGAGCTAC
 CAACTCTTTTTCCGAAGGTAACCTGGCTTCAGCAGAGCGCAGATACCAAATACTGT
 CCTTCTAGTGTAAGCCGTAGTTAGGC
 CACCACTTCAAGAACTCTGTAGCACCGCTACATACCTCGCTCTGCTAATCCTGT
 TACCAGTGGCTGCTGCCAGTGGCGA
 TAAGTCGTGCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAG
 CGGTCGGGCTGAACGGGGGGTTCTG
 GCACACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGC
 GTGAGCTATGAGAAAGCGCCACGCTT
 CCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGG-

Figure 5C

AGAGCGCACGAGGGAGGTTCCAGGGGGAAACGCCTGGTATCTTTATAGTCCTGTC
GGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGG
GGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTACGGTTCCTGGCCTT
TTGCTGGCCTTTTGCTCACATGGCT
CGAC3'

Figure 5D

5'AGATCTTCAATATTGGCCATTAGCCATATTATTCATTGGTTATATAGCATAAATC
 AATATTGGCTATTGGCCATTGCAT
 ACGTTGTATCTATATCATAATATGTACATTTATATTGGCTCATGTCCAATATGACC
 GCCATGTTGGCATTGATTATTGAC
 TAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGGAG
 TTCCGCGTTACATAACTTACGGTAA
 ATGGCCCCGCTGGCTGACCGCCCAACGACCCCCGCCCATTGACGTCAATAATGAC
 GTATGTTCCCATAGTAACGCCAATA
 GGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCACTTGG
 CAGTACATCAAGTGTATCATATGCC
 AAGTCCGCCCCCTATTGACGTCAATGACGGTAAATGGCCCCGCTGGCATTATGCC
 CAGTACATGACCTTACGGGACTTTC
 CTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGTGATGCGGTT
 TTGGCAGTACACCAATGGGCGTGGA
 TAGCGGTTTGACTCACGGGGATTTCCAAGTCTCCACCCCATTGACGTCAATGGGA
 GTTTGTTTTGGCACCAAATCAACG
 GGACTTTCCAAATGTGCTAACAACCTGCGATCGCCCCGCCCCGTTGACGCAAATGG
 GCGGTAGGCGTGTACGGTGGGAGGT
 CTATATAAGCAGAGCTCGTTTGTGTAACCGTCAGATCACTAGAAGCTTTATTGCG
 GTAGTTTATCACAGTTAAATTGCTA
 ACGCAGTCAGTGCTTCTGACACAACAGTCTCGAACTTAAGCTGCAGTGACTCTCT
 TAATTAACCTCCACAGTCTCACTTC
 AGTTCCTTTTGCTCCACCAGTCTCACTTCAGTTCCTTTTGCATGAAGAGCTCAGA
 ATCAAAAGAGGAAACCAACCCCTA
 AGATGAGCTTTCCATGTAAATTTGTAGCCAGCTTCCTTCTGATTTTCAATGTTTCT
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 ATTACGAATGCCTTGGAACCTGGGGTGCCTTGGGTCAGGACATCAACTTGGACA
 TTCCTAGTTTTCAAATGAGTGATGA
 TATTGACGATATAAAATGGGAAAAAACTTCAGACAAGAAAAAGATTGCACAATTC
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 AAGATGGGAAACATCTAAACTTTCTCAGAGGGTCATCACACACAAGTGGACCAC
 CAGCCTGAGTGCAAAATTCAAGTGC
 ACAGCAGGGAACAAAGTCAGCAAGGAATCCAGTGTCGAGCCTGTCAGCTGTCCA
 GAGAAAGGGATCCCAGGTGAGTAGGG
 CCCGATCCTTCTAGAGTCGAGCTCTCTTAAGGTAGCAAGGTTACAAGACAGGTTT
 AAGGAGACCAATAGAACTGGGCTT
 GTCGAGACAGAGAAGACTCTTGCGTTTCTGATAGGCACCTATTGGTCTTACGCGG
 CCGCGAATTCCAAGCTTGAGTATTC
 TATCGTGTACCTAAATAACTTGGCGTAATCATGGTCATATCTGTTTCCTGTGTGA
 AATTGTTATCCGCTCACAATTCCA
 CACAACATACGAGCCGGAAGCATAAAGTGTAAGCCTGGGGTGCCTAATGAGTG
 AGCTAACTCACATTAATTGCGTTGCG
 CGATGCTTCCATTTTGTGAGGGTTAATGCTTCGAGAAGACATGATAAGATAACATT
 GATGAGTTTGGACAAACCACAACAAGAATGCAGTGAAAAAAATGCTTTATTGT-

Figure 6A

GAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAA
 CAAGTTAACAACAACAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGGAGATGT
 GGGAGGTTTTTTTAAAGCAAGTAAAA
 CCTCTACAAATGTGGTAAAAATCCGATAAGGATCGATTCCGGAGCCTGAATGGCGA
 ATGGACGCGCCCTGTAGCGGCGCAT
 TAAGCGCGGCGGGTGTGGTGGTTACGCGCACGTGACCGCTACACTTGCCAGCGC
 CCTAGCGCCCGCTCCTTTTCGCTTTCT
 TCCCTTCCTTTCTCGCCACGTTCCGCGGCTTTCCCGTCAAGCTCTAAATCGGGG
 GCTCCCTTTAGGGTTCCGATTTAGT
 GCTTTACGGCACCTCGACCCCAAAAACTTGATTAGGGTGATGGTTACGTTAGTG
 GGCCATCGCCCTGATAGACGGTTTT
 TCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTTGTTCCAAACTG
 GAACAACACTCAACCCTATCTCG
 TCTATTCTTTTGATTATAAGGGATTTTGCCGATTTCCGGCCTATTGGTTAAAAAAT
 GAGCTGATTTAACAATAAATTTAAC
 GCGAATTTTAACAATAAATTTAACGCTTACAATTTCCGCTGTGTACCTTCTGAGGC
 GGAAAGAACCAGCTGTGGAATGTGT
 GTCAGTTAGGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAA
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 AGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCAT
 CTCAATTAGTCAGCAACCATAGTCCC
 GCCCCTAACCTCCGCCCATCCCGCCCCTAACTCCGCCAGTTCCGCCATTCTCCG
 CCCCATTGGCTGACTAATTTTTTTTA
 TTTATGCAGAGGCCGAGGCCGCTCGGCCCTCTGAGCTATTCCAGAAGTAGTGAGG
 AGGCTTTTTTGGAGGCCTAGGCTTT
 TGCAAAAAGCTTGATTCTTCTGACACAACAGTCTCGAACTTAAGGCTAGAGCCAC
 CATGATTGAACAAGATGGATTGCAC
 GCAGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTCCGGCTATGACTGGGCACAAC
 AGACAATCGGCTGCTCTGATGCCGC
 CGTGTTCCGGCTGTGACGCGCAGGGGCGCCCGGTTCTTTTTGTCAAGACCGACCTG
 TCCGGTGCCCTGAATGAACTGCAGG
 ACGAGGCAGCGCGGCTATCGTGGCTGGCCACGACGGGCGTTCTTTCGCGCAGCTG
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 CATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTG
 GACCACCAAGCGAAACATCGCATCG
 AGCGAGCACGTACTCGGATGGAAGCCGGTCTTGTCGATCAGGATGATCTGGACG
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 ACCCATGGCGATGCCTGCTTGCCGAA
 TATCATGGTGGAAAAATGGCCGCTTTTCTGGATTCATCGACTGTGGCCGGCTGGGT
 GTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGC
 TTGGCGGCGAATGGGCTGACCGCTTCTCTGCTTTACGGTATCGCCGCT
 CCGATTTCGACGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGCGG
 GACTCTGGGGTTCGAAATGACCGAC
 CAAGCGACGCCCAACCTGCCATCACGATGGCCGCAATAAAATATCITTATTTTCA
 TTACATCTGTGTGTGGTTTTTTGT
 GTGAAGATCCGCGTATGGTGCACCTCTCAGTACAATCTGCTCTGATGCCGCATAGT
 TAAGCCAGCCCCGACACCCGCCAACACCCGCTGACGCGCCCTGACGGGCT-

Figure 6B

TGTCTGCTCCCGGCATCCGCTTACAGACAAGCTGTGACCGTCTCCGGGAGCTGCA
 TGTGTCAGAGGTTTTACCGTCATCACCGAAACGCGCGAGACGAAAGGGCCTCGT
 GATACGCCTATTTTTATAGGTTAAT
 GTCATGATAATAATGGTTTTCTTAGACGTCAGGTGGCACTTTTCGGGGAAATGTGC
 GCGGAACCCCTATTTGTTTATTTTT
 CTAAATACATTCAAATATGTATCCGCTCATGAGACAATAACCCTGATAAATGCTT
 CAATAATATTGAAAAAGGAAGAGTA
 TGAGTATTCAACATTTCCGTGTCGCCCTTATTCCCTTTTTTGCGGCATTTTGCCTT
 CCTGTTTTTGCTCACCCAGAAACG
 CTGGTGAAAGTAAAAGATGCTGAAGATCAGTTGGGTGCACGAGTGGGTACATC
 GAACTGGATCTCAACAGCGGTAAGAT
 CCTTGAGAGTTTTCGCCCCGAAGAACGTTTTCCAATGATGAGCACTTTTAAAGTT
 CTGCTATGTGGCGCGGTATTATCCC
 GTATTGACGCCGGGCAAGAGCAACTCGGTCGCCGCATACACTATTCTCAGAATGA
 CTGGTTGAGTACTCACCAGTCACA
 GAAAAGCATCTTACGGATGGCATGACAGTAAGAGAATTATGCAGTGCTGCCATAA
 CCATGAGTGATAAACTGCGGCCAA
 CTTACTTCTGACAACGATCGGAGGACCGAAGGAGCTAACCGCTTTTTTGACAAAC
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 ATCGTTGGGAACCGGAGCTGAATGAAGCCATACCAAACGACGAGCGTGACACCA
 CGATGCCTGTAGCAATGGCAACAACG
 TTGCGCAAACCTATTAACCTGGCGAACTACTTACTCTAGCTTCCCGGCAACAATTAA
 TAGACTGGATGGAGGCGGATAAAGT
 TGCAAGGACCACTTCTGCGCTCGGCCCTTCCGGCTGGCTGGTTTTATTGCTGATAAA
 TCTGGAGCCCGGTGAGCGTGGGTCTC
 GCGGTATCATTGCAGCACTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAGTTAT
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 ATGGATGAACGAAATAGACAGATCGCTGAGATAGGTGCCTCACTGATTAAGCATT
 GGTAACCTGTCAGACCAAGTTTACTC
 ATATATACTTTAGATTGATTAAAACTTCATTTTAAATTTAAAAAGGATCTAGGTGA
 AGATCCTTTTTTGATAATCTCATGA
 CAAAAATCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAA
 GATCAAAGGATCTTCTTGAGATCCT
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 TGGTTTGTTTGCCGGATCAAGAGCT
 ACCAACTCTTTTTCCGAAGGTAACCTGGCTTCAGCAGAGCGCAGATACCAAATACT
 GTCCTTCTAGTGTAGCCGTAGTTAG
 GCCACCACTTCAAGAACTCTGTAGCACCGCCTACATACCTCGCTCTGCTAATCCT
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 GTGCACACAGCCCAGCTTGAGAGCGAACGACCTACACCGAACTGAGATACCTACA
 GCGTGAGCTATGAGAAAAGCGCCACGC
 TTCCCGAAGGGAGAAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAG
 GAGAGCGCACGAGGGAGCTTCCAGGG
 GGAAACGCCTGGTATCTTTATAGTCCTGTCGGGTTTCGCCACCTCTGACTTGAGC
 GTCGATTTTTGTGATGCTCGTCAGG
 GGGGCGGAGCCTATGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCTGGC
 CTTTTGCTGGCCTTTTGCTCACATGG
 CTCGAC3'

Figure 6C

5'AGATCTTCAATATTGGCCATTAGCCATATTATTCATTGGTTATATAGCATAAATC
 AATATTGGCTATTGGCCATTGCAT
 ACGTTGTATCTATATCATAATATGTACATTTATATTGGCTCATGTCCAATATGACC
 GCCATGTTGGCATTGATTATTGAC
 TAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGGAG
 TTCCGCGTTACATAACTTACGGTAA
 ATGGCCCGCCTGGCTGACCGCCCAACGACCCCCGCCCATTGACGTCAATAATGAC
 GTATGTTCCCATAGTAACGCCAATA
 GGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCACTTGG
 CAGTACATCAAGTGTATCATATGCC
 AAGTCCGCCCCCTATTGACGTCAATGACGGTAAATGGCCCGCCTGGCATTATGCC
 CAGTACATGACCTTACGGGACTTTC
 CTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGTGATGCGGTT
 TTGGCAGTACACCAATGGGCGTGGA
 TAGCGGTTTGACTCACGGGGATTTCGAAGTCTCCACCCCATTGACGTCAATGGGA
 GTTTGTTTTGGCACCAAAATCAACG
 GGACTTTCCAAAATGTCGTAACAACCTGCGATCGCCCGCCCCGTTGACGCAAATGG
 GCGGTAGGCGTGTACGGTGGGAGGT
 CTATATAAGCAGAGCTCGTTTAGTGAACCGTCAGATCACTAGAAGCTTTATTGCG
 GTAGTTTATCACAGTTAAATTGCTA
 ACGCAGTCAGTGCTTCTGACACAACAGTCTCGAACTTAAGCTGCAGTGACTCTCT
 TAATTAACCTCCACCAGTCTCACTTC
 AGTTCCTTTTGCCTCCACCAGTCTCACTTCAGTTCCTTTTGCATGAAGAGCTCAGA
 ATCAAAAGAGGAAACCAACCCCTA
 AGATGAGCTTTCCATGTAAATTTGTAGCCAGCTTCCTTCTGATTTTCAATGTTTCT
 TCCAAAGGTGCAGTCTCCAAAGAG
 ATTACGAATGCCTTGGAACCTGGGGTGCCTTGGGTCAGGACATCAACITGGACA
 TTCCTAGTTTTCAATGAGTGATGA
 TATTGACGATATAAAATGGGAAAAAACTTCAGACAAGAAAAAGATTGCACAATTC
 AGAAAAGAGAAAAGAGACTTTCAAGG
 AAAAAAGATACATATAAGCTATTTAAAAATGGAACCTTGAAAAATTAAGCATCTGAA
 GACCGATGATCAGGATATCTACAAG
 GTATCAATATATGATACAAAAGGAAAAAATGTGTTGGAAAAAATATTTGATTTGA
 AGATTCAAGAGAGGGTCTCAAAACC
 AAAGATCTCCTGGACTTGTATCAACACAACCCTGACCTGTGAGGTAATGAATGGA
 ACTGACCCCGAATTAAACCTGTATC
 AAGATGGGAAACATCTAAAACCTTCTCAGAGGGTCATCACACACAAGTGGACCAC
 CAGCCTGAGTGCAAAATTCAAGTGC
 ACAGCAGGGAACAAAGTCAGCAAGGAATCCAGTGTCGAGCCTGTCAGCTGTCCA
 GAGAAAGGGATCCACAGGTGAGTAGG
 GCCCGATCCTTCTAGAGTCGAGCTCTCTTAAGGTAGCAAGGTTACAAGACAGGTT
 TAAGGAGACCAATAGAAACTGGGCT
 TGTCGAGACAGAGAAGACTCTTGCGTTTCTGATAGGCACCTATTGGTCTTACGCG
 GCCGCGAATTCCAAGCTTGAGTATT
 CTATCGTGTACCTAAATAACTTGGCGTAATCATGGTCATATCTGTTTCCTGTGTG
 AAATTGTTATCCGCTCACAATTCC
 ACACAACATACGAGCCGGAAGCATAAAGTGTAAGCCTGGGGTGCCTAATGAGT
 GAGCTAACTCACATTAAATTGCGTTGC
 GCGATGCTTCCATTTTGTGAGGGTTAATGCTTCGAGAAGACATGATAAGATACAT
 TGATGAGTTTGGACAAACCACAACA AGAATGCAGTGAATAAATGTC-

Figure 7A

TTTATTTGTGAAATTTGTGATG
 CTATTGCTTTATTTGTAACCATTATAAGCTGCAATAA
 ACAAGTTAACAACAACAATTGCATTTCATTTTATGTTTCAGGTTTCAGGGGGAGATG
 TGGGAGGTTTTTTAAAGCAAGTAAA
 ACCTCTACAAATGTGGTAAAATCCGATAAGGATCGATTCCGGAGCCTGAATGGCG
 AATGGACGCGCCCTGTAGCGGCGCA
 TTAAGCGCGGCGGGTGTGGTGGTTACGCGCACGTGACCGCTACACTTGCCAGCGC
 CCTAGCGCCCGCTCCITTCGCTTC
 TTCCCTTCCTTTCTCGCCACGTTTCGCCGGCTTTCCCGTCAAGCTCTAAATCGGGG
 GCTCCCTTTAGGGTTCCGATTTAG
 TGCTTTACGGCACCTCGACCCCAAAAACTTGATTAGGGTGATGGTTCACGTAGT
 GGGCCATCGCCCTGATAGACGGTTT
 TTCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTTGTTCCAAACT
 GGAACAACACTCAACCCTATCTCG
 GTCTATTCTTTTGATTTATAAGGGATTTTGCCGATTTCCGGCCTATTGGTTAAAAAA
 TGAGCTGATTTAAACAAAAATTTAA
 CGGAATTTTAAACAAAATATTAACGCTTACAATTTGCCTGTGTACCTTCTGAGG
 CGGAAAGAACCAGCTGTGGAATGTG
 TGTCAGTTAGGGTGTGGAAGTCCCCAGGCTCCCCAGCAGGCAGAAAGTATGCAA
 AGCATGCATCTCAATTAGTCAGCAAC
 CAGGTGTGGAAGTCCCCAGGCTCCCCAGCAGGCAGAAAGTATGCAAAGCATGCA
 TCTCAATTAGTCAGCAACCATAGTCC
 CGCCCCTAACTCCGCCCATCCCGCCCCTAACTCCGCCCAGTTCCGCCCATTTCTCC
 GCCCATGGCTGACTAATTTTTTTT
 ATTTATGCAGAGGCCGAGGCCGCTCGGCCTCTGAGCTATTCCAGAAGTAGTGAG
 GAGGCTTTTTTGGAGGCCCTAGGCTT
 TTGCAAAAAGCTTGATTCTTCTGACACAACAGTCTCGAACITTAAGGCTAGAGCCA
 CCATGATTGAACAAGATGGATTGCA
 CGCAGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTCGGCTATGACTGGGCACAA
 CAGACAATCGGCTGCTCTGATGCCG
 CCGTGTTCCGGCTGTGACGCGAGGGGCGCCCGGTTCTTTTTGTCAAGACCGACCT
 GTCCGGTGCCCTGAATGAACTGCA
 GACGAGGCAGCGCGGCTATCGTGGCTGGCCACGACGGGCGTTCTTGCGCAGCT
 GTGCTCGACGTTGTCACTGAAGCGGG
 AAGGGACTGGCTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCATCTCAC
 CTTGCTCCTGCCGAGAAAGTATCCA
 TCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCAT
 CGACCACCAAGCGAAACATCGCATC
 GAGCGAGCACGTA CTGGATGGAAGCCGGTCTTGTCGATCAGGATGATCTGGAC
 GAAGAGCATCAGGGGCTCGCGCCAGC
 CGAACTGTTCCGCCAGGCTCAAGGCGCGCATGCCCGACGGCGAGGATCTCGTCGT
 GACCCATGGCGATGCCCTGCTTGCCGA
 ATATCATGGTGGAAAATGGCCGCTTTTCTGGATTCATCGACTGTGGCCGGCTGGG
 TGTGGCGGACCGCTATCAGGACATA
 GCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGACCGCT
 TCCTCGTGCTTTACGGTATCGCCG
 TCCCGATTTCGACGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGCG
 GGA CTCTGGGGTTTCGAAATGACCGA
 CCAAGCGACGCCCAACCTGCCATCACGATGGCCGCAATAAAATATCTTTATTTTC
 ATTACATCTGTGTGTTGGTTTTTTGTGTGAAGATCCGCGTATGGTGCACTCTC

Figure 7B

AGTACAATCTGCTCTGATGCCGCATAGTTAAGCCAGCCCCGACACCCGCCAA
 CACCCGCTGACGCGCCCTGACGGGCTTGTCTGCTCCCGGCATCCGCTTACAGACA
 AGCTGTGACCGTCTCCGGGAGCTGC
 ATGTGTCAGAGGTTTTACCGTTCATCACCAGAACGCGCGAGACGAAAGGGCCTCG
 TGATACGCCTATTTTTATAGGTAA
 TGTTCATGATAATAATGGTTTTCTTAGACGTCAGGTGGCACTTTTCGGGGAAATGTG
 CGCGGAACCCCTATTTGTTTATTTT
 TCTAAATACATTCAAATATGTATCCGCTCATGAGACAATAACCCTGATAAATGCT
 TCAATAATATTGAAAAAGGAAGAGT
 ATGAGTATTCAACATTTCCGTGTCGCCCTTATTCCCTTTTTTGCGGCATTTTGCCT
 TCCTGTTTTTTGCTCACCCAGAAAC
 GCTGGTGAAAGTAAAAGATGCTGAAGATCAGTTGGGTGCACGAGTGGGTACAT
 CGAACTGGATCTCAACAGCGGTAAGA
 TCCTTGAGAGTTTTCGCCCCGAAGAACGTTTTCCAATGATGAGCACTTTTAAAGT
 TCTGCTATGTGGCGCGGTATTATCC
 CGTATTGACGCCGGGCAAGAGCAACTCGGTGCGCCGCATACACTATTCTCAGAATG
 ACTTGGTTGAGTACTCACCAAGTCAC
 AGAAAAGCATCTTACGGATGGCATGACAGTAAGAGAATTATGCAGTGCTGCCATA
 ACCATGAGTGATAACACTGCGGCCA
 ACTTACTTCTGACAACGATCGGAGGACCGAAGGAGCTAACCGCTTTTTTGACAA
 CATGGGGGATCATGTAACCTCGCCTT
 GATCGTTGGGAACCGGAGCTGAATGAAGCCATACCAAACGACGAGCGTGACACC
 ACGATGCCTGTAGCAATGGCAAACAAC
 GTTGCGCAAACTATTAAGTGGCGAACTACTTACTCTAGCTTCCCGGCAACAATTA
 ATAGACTGGATGGAGGCGGATAAAG
 TTGCAGGACCACTTCTGCGCTCGGCCCTTCCGGCTGGCTGGTTTATTGCTGATAA
 ATCTGGAGCCGGTGAGCGTGGGTCT
 CGCGGTATCATTCAGCACTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAGTTA
 TCTACACGACGGGGAGTCAGGCAAC
 TATGGATGAACGAAATAGACAGATCGCTGAGATAGGTGCCTCACTGATTAAGCAT
 TGGTAACTGTCAGACCAAGTTTACT
 CATATATACITTTAGATTGATTTAAACTTCATTTTTTAATTTAAAGGATCTAGGTG
 AAGATCCTTTTTTGATAATCTCATG
 ACCAAAATCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAA
 AGATCAAAGGATCTTCTTGAGATCC
 TTTTTTTCTGCGCGTAATCTGCTGCTTGCAAACAAAAAAACCACCGCTACCAGCG
 GTGGTTTGTGTTGCCGGATCAAGAGC
 TACCAACTCTTTTTCCGAAGGTAAGTGGCTTCAGCAGAGCGCAGATACCAAATAC
 TGTCTTCTAGTGTAGCCGTAGTTA
 GGCCACCACTTCAAGAACTCTGTAGCACCGCCTACATACCTCGCTCTGCTAATCC
 TGTTACCAGTGGCTGCTGCCAGTGG
 CGATAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCG
 CAGCGGTGCGGGCTGAACGGGGGGTT
 CGTGACACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTAC
 AGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGT
 ATCCGGTAAGCGGCAGGGTCCGAACAGGAGAGCGCACGAGGGAGCTTCCAGG
 GGGAAACGCCTGGTATCTTTATAGTCTGTGCGGGTTTCGCCACCTCTGACTTGAG
 CGTCGATTTTTGTGATGCTCGTCAG
 GGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCTGG
 CCTTTTGTGCTGGCCTTTTGCTCACATGGCTCGAC3'

Figure 7C

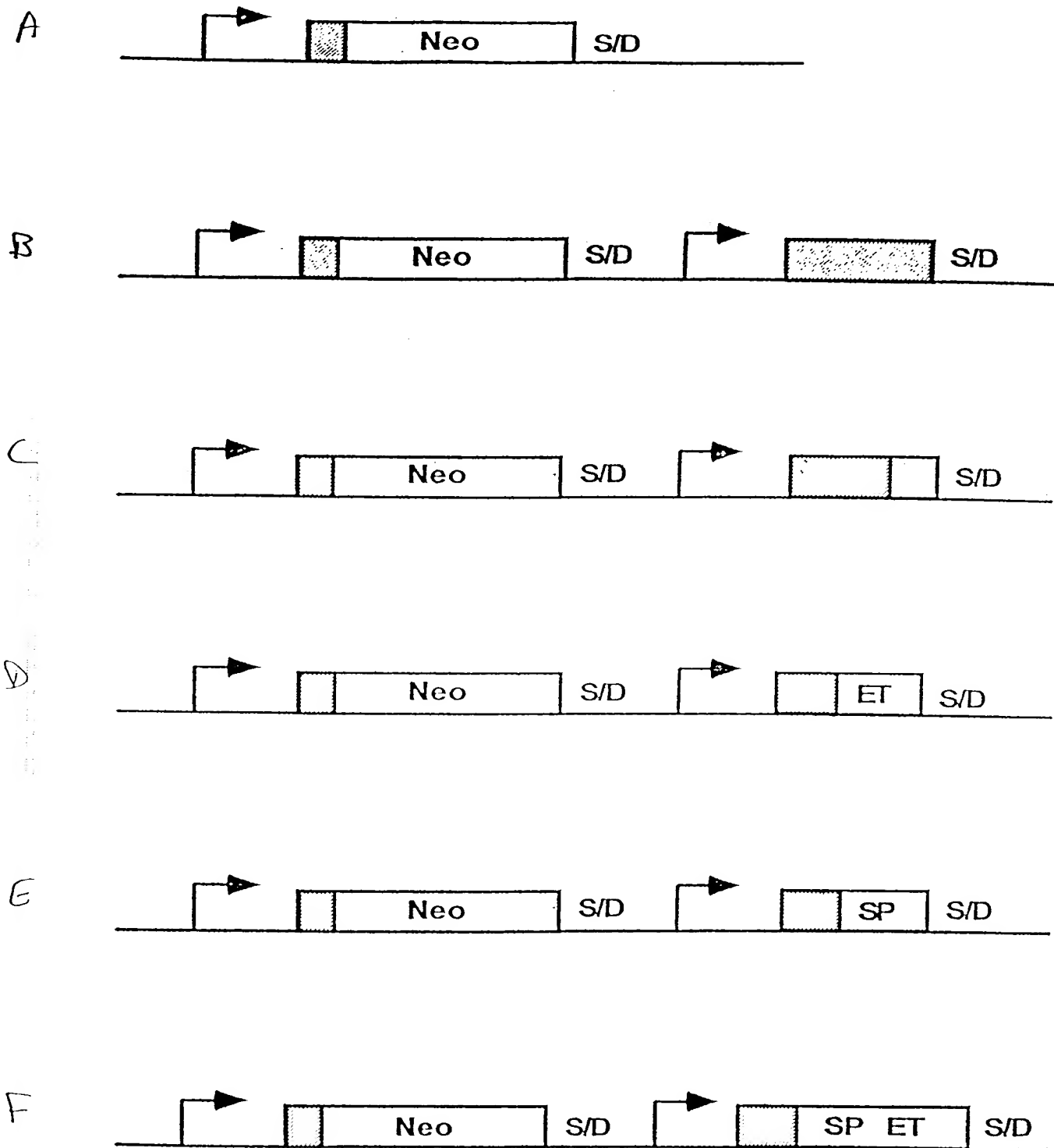


FIGURE 8

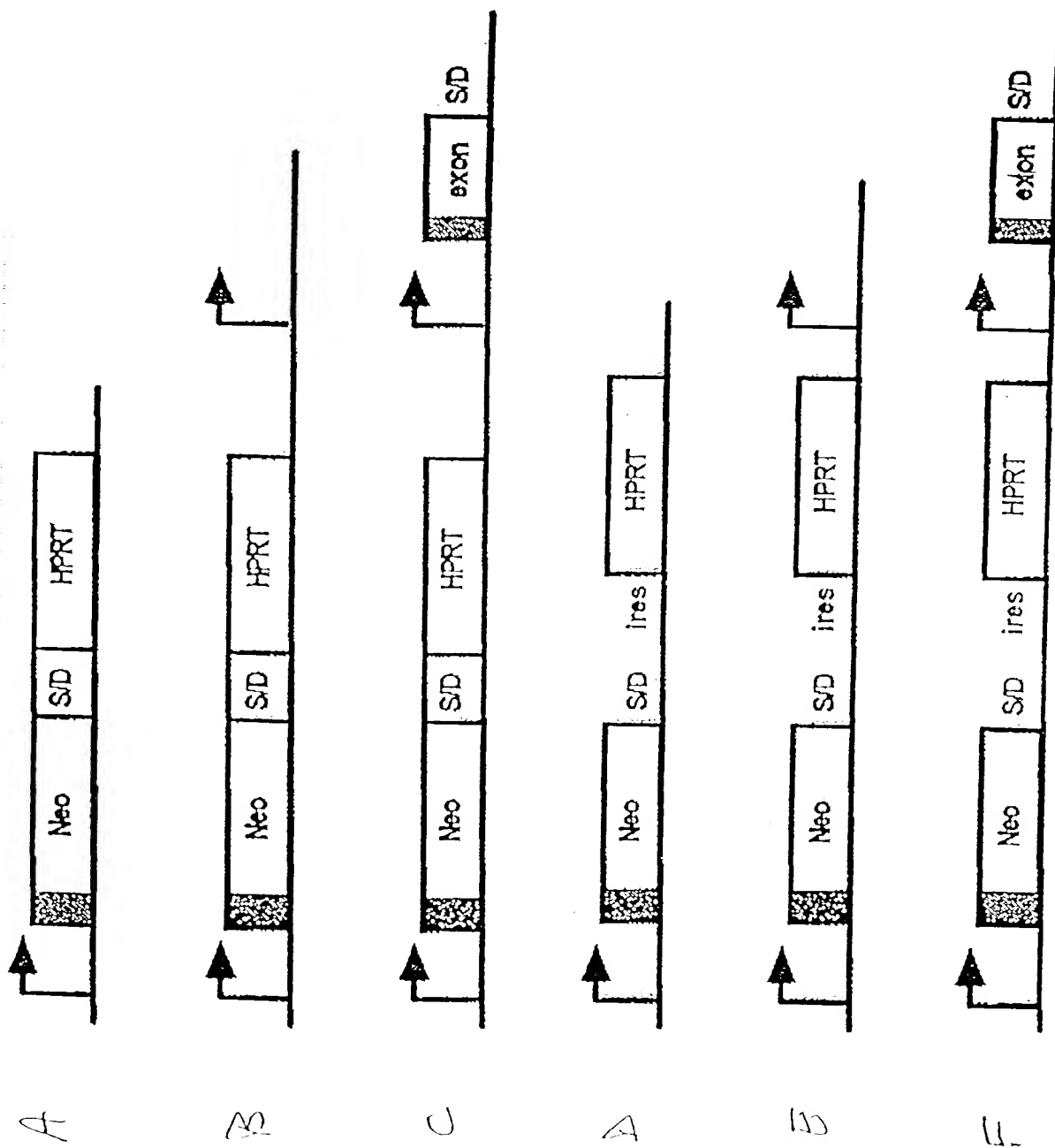


FIGURE 9

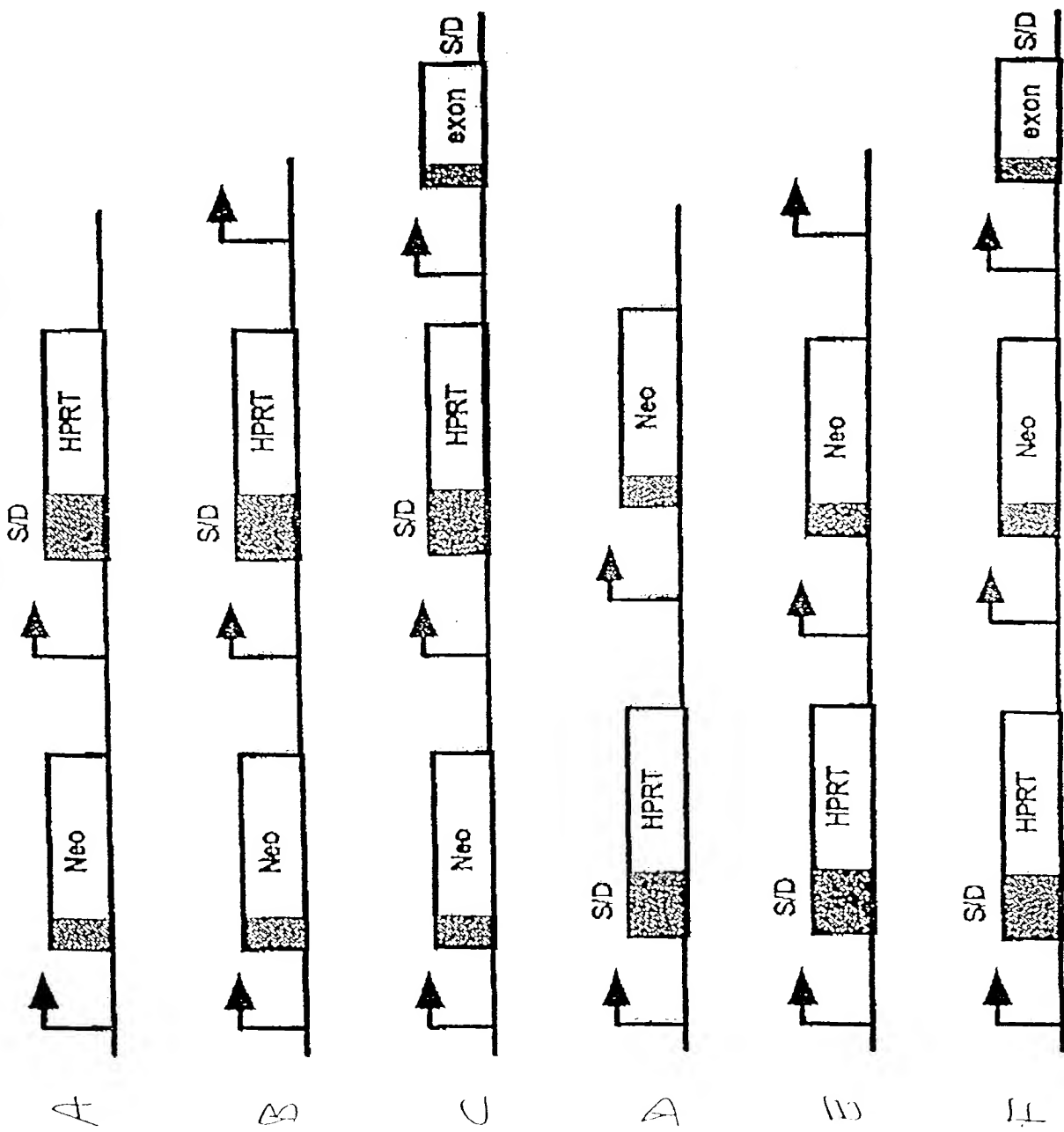
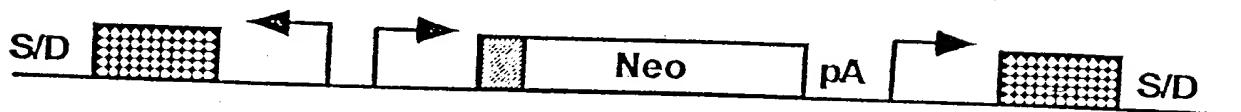


FIGURE 10

A



B



C

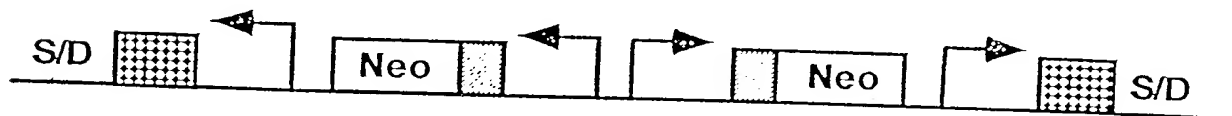


FIGURE 11

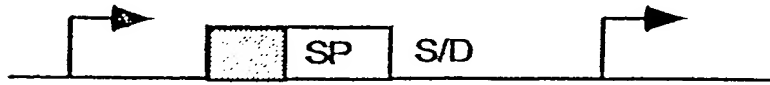
A



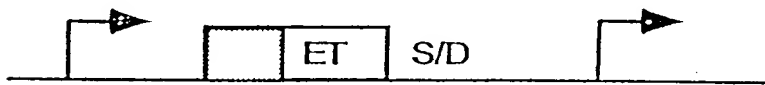
B



C



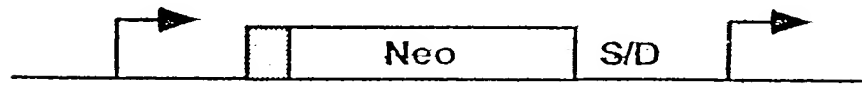
D



E



F



G

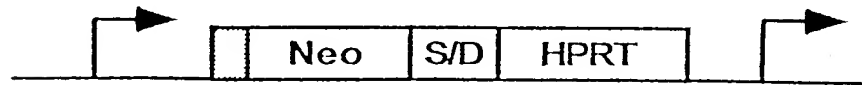


FIGURE 12

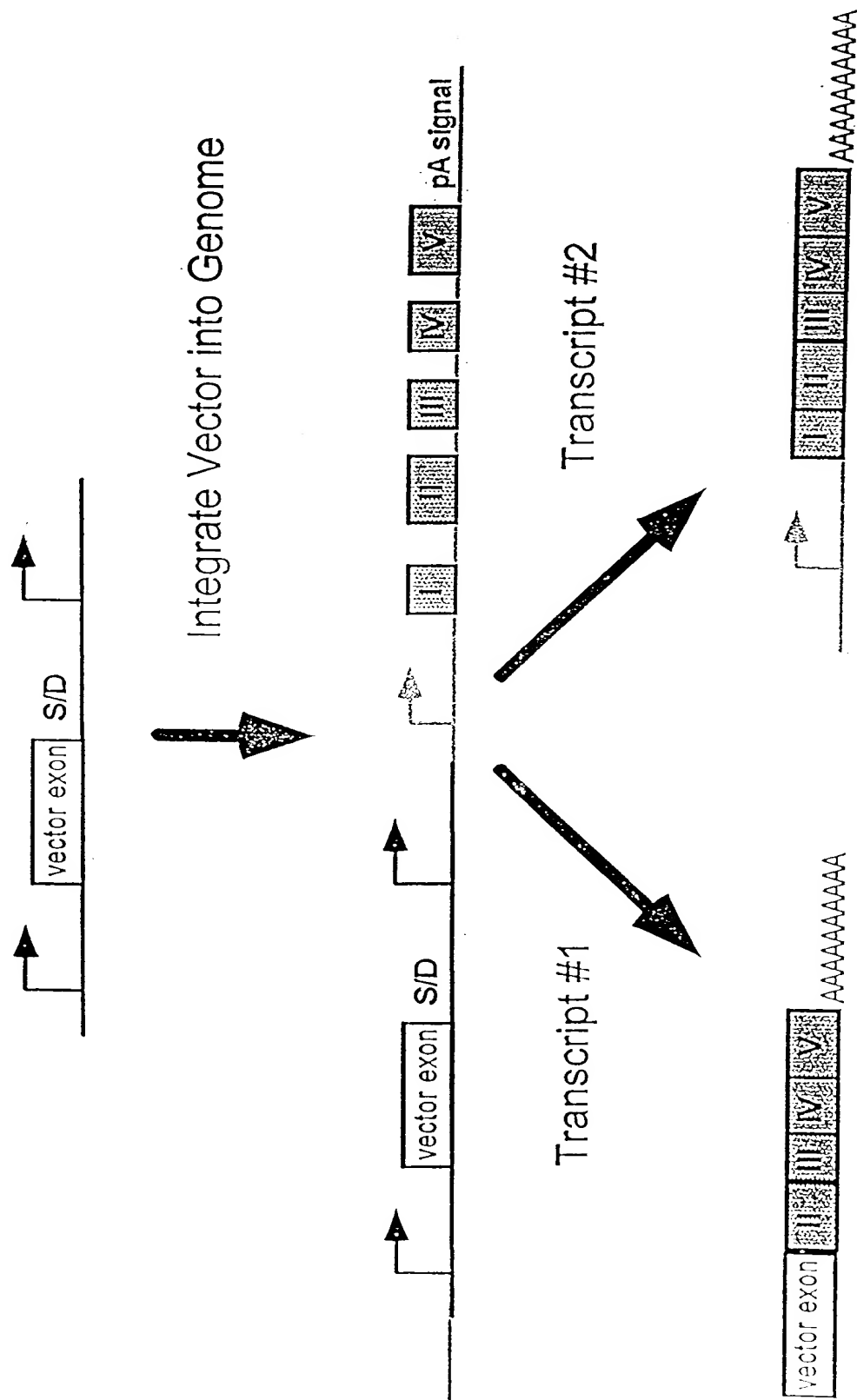


FIGURE 13

AGATCTTCAATATTGGCCATTAGCCATATTATTTCATTGGTTATATAGCATAAATCAATATTGG
CTATTGGCCATTGCATACGTTGTATCTATATCATAATATGTACATTTATATTGGCTCATGTCCA
ATATGACCGCCATGTTGGCATTGATTATTGACTAGTTATTAATAGTAATCAATTACGGGGTCA
TTAGTTCATAGCCCATATATGGAGTTCGCGGTTACATAACTTACGGTAAATGGCCCCGCTGGC
TGACCGCCCAACGACCCCCGCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCA
ATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCCACTTGGCAGTA
CATCAAGTGTATCATATGCCAAGTCCGCCCCCTATTGACGTCAATGACGGTAAATGGCCCCGCC
TGGCATTATGCCCAGTACATGACCTTACGGGACTTTCCTACTTGGCAGTACATCTACGTATTA
GTCATCGCTATTACCATGGTGATGCGGTTTTTGGCAGTACACCAATGGGCGTGGATAGCGGTTT
GACTCACGGGGATTTCGAAGTCTCCACCCCCATTGACGTCAATGGGAGTTTGTTTTGGCACCAA
AATCAACGGGACTTTCCAAAATGTCGTAACAACTGCGATCGCCCCGCCCGTTGACCGCAAATG
GGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTGTAGTGAACCGTCAGAT
CACTAGAAGCTTTATTGCGGTAGTTTATCACAGTTAAATTGCTAACGCAGTCAGTGCTTCTGA
CACAACAGTCTCGAACTTAAGCTGCAGTGA CTCTCTTA AatccacatggctacaggtgagtactcgGATCTA
GCGCTATATGCGTTGATGCAATTTCTATGCGCACCCGTTCTCGGAGCACTGTCCGACCCGCTTT
GGCCGCCGCCAGTCCCTGCTCGCTTCGCTACTTGGAGCCACTATCGACTACGCGATCATGGCG
ACCACACCCGTCCTGTGGATCCTCTACGCCGGACGCATCGTGGCCGGCATCACCGGCGGCCACA
GGTGGCGTTGCTGGCGCCTATATCGCCGACATCACCGATGGGGAAAGATCGGGGCTCGGCACTTC
GGGCTCATGAGCGCTTGTTCGGCTCTCTTAAGGTAGCAGATCCTTGCTAGAGTGCACCAATT
CTCATGTTTGACAGCTTATCATCGCAGATCCTGAGCTTGTATGGTGCACTCTCAGTACAATCT
GCTCTGCTGCCGCATAGTTAAGCCAGTATCTGCTCCCTGCTTGTGTGTTGGAGGTGCGCTGAGT
AGTGGCGGAGCAAAATTTAAGCTACAACAAGGCAAGGCTTGACCGACAATTGCATGAAGAAT
CTGCTTAGGGTTAGGCGTTTTGCGCTGCTTCGCGATGTACGGGCCAGATATACGCGTATCTGA
GGGGA CTAGGGTGTGTTTAGGCGCCAGCGGGGCTTCGGTTGTACGCGGTTAGGAGTCCCCTC
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AGTCTTGCAACATGGTAACGATGAGTTAGCAACATGCCTTACAAGGAGAGAAAAAGCACCGT
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AAGCCTGGGGTGCCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCGATGCTTCCATTT
TGTGAGGGTTAATGCTTCGAGAAGACATGATAAGATACATTGATGAGTTTGGACAAACCACA
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ACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCATTTTATGTTTCAGGTT
CAGGGGGAGATGTGGGAGGTTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTAAATCCG
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CGGCGGGTGTGGTGGTTACGCGCACGTGACCGCTACACTTGCCAGCGCCCTAGCGCCCGCTCC
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GGTGATGGTTACGTAAGTGGGCCATCGCCCTGATAGACGGTTTTTCGCCCTTTGACGTTGGAG
TCCACGTTCTTTAATAGTGGA CTCTTGTTCCAAACCTGGAACAACACTCAACCCTATCTCGGTC
TATTCTTTTGATTATATAAGGGATTITGCCGATTTCGGGCTATTGGTTAAAAAATGAGCTGATTT
AACAAAAATTTAACGCGAATTTTAAACAAAATATTAACGCTTACAATTTGCGCTGTGTACCTTC
TGAGGCGGAAAGAACCAGCTGTGGAATGTGTGTGAGTTAGGGTGTGGAAAGTCCCCAGGCTC
CCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCAGGTGTGGAAAGT
CCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCATA-

FIGURE 14A

GTCCCGCCCCCTAACTCCGCCCCATCCCGCCCCCTAACTCCGCCCCAGTTCCGCCCCATTCTCCGCCCC
ATGGCTGACTAATTTTTTTTATTTATGACAGAGGCCGAGGCCGCTCGGCTCTGAGCTATTCC
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CAACAGTCTCGAACTTAAGGCTAGAGCCACCATGATTGAACAAGATGGATTGCACGCAGGTT
CTCCGGCCGCTTGGGTGGAGAGGCTATTCGGCTATGACTGGGCACAACAGACAATCGGCTGC
TCTGATGCCGCCGTGTTCCGGCTGTCAGCGCAGGGGCGCCCGGTTCTTTTTGTCAAGACCGAC
CTGTCCGGTGCCCTGAATGAACTGCAGGACGAGGCAGCGCGGCTATCGTGGCTGGCCACGAC
GGGCGTTCCCTTGCGCAGCTGTGCTCGACGTTGTACTGAAGCGGGAAGGGACTGGCTGCTATT
GGGCGAAGTGCCGGGGCAGGATCTCCTGTCTCATCTCACCTTGCTCCTGCCGAGAAAGTATCCAT
CATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTCGACCAACCA
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CACGATGGCCGCAATAAAATATCTTTATTTTCAATTACATCTGTGTGTTGGTTTITGTGGAAG
ATCCGCGTATGGTGCACTCTCAGTACAATCTGCTCTGATGCCGCATAGTTAAGCCAGCCCCGA
CAACCGCCAAACACCCGCTGACGCGCCCTGACGGGCTTGTCTGCTCCCGGCATCCGCTTACAGA
CAAGCTGTGACCGTCTCCGGGAGCTGCATGTGTGTCAGAGGTTTTACCGTCATCACCGAAACGC
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GCCCCGAAGAACGTTTTCCAATGATGAGCACTTTTAAAGTTCTGCTATGTGGCGCGGTATTAT
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CACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGA
GAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTCG
GAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGAAACGCCTGGTATCTTATAGTCCTGTC
GGGTTTCCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGCGGAGCCTA
TGGA AAAACGCCAGCAACGCGGCCCTTTTACGGTTCTTGGCCTTTTGCTGGCCTTTTGCTCAC
ATGGCTCGAC

FIGURE 14B

GATCTTCAATATTGGCCATTAGCCATATTATTCATTGGTTATATAGCATAAATCAATATTGGCT
ATTGGCCATTGCATACGTTGTATCTATATCATAATATGTACATTTATATTGGGCTCATGTCCAAT
ATGACCGCCATGTTGGCATTGATTATTGACTAGTTATTAATAGTAATCAATTACGGGGTCATT
AGTTTCATAGCCCATATATGGAGTTCGCGTTACATAACTTACGGTAAATGGCCCGCTGGCTG
ACCGCCCAACGACCCCGCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAAT
AGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCCACTTGGCAGTACA
TCAAGTGTATCATATGCCAAGTCCGCCCCCTATTGACGTCAATGACGGTAAATGGCCCGCTG
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AGTCCCCAGGCTCCCCAGCAGGAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACC
ATAGTCCCGCCCCCTAACTCCGCCCCCTAACTCCGCCCCAGTCCGCCCCATTCTCCG
CCCCATGGCTGACTAATTTTTTTTATGTCAGAGGCCGAGGCCGCTCGGCCTCTGAGCTA
TTCCAGAAGTAGTGAGGAGGCTTTTTTGGAGGCCCTAGGCTTTTTGCAAAAAGCTTGATTCTTCT
GACACAACAGTCTCGAACTTAAGGCTAGAGCCACCATTGATGAACAAGATGGATTGCACGCA
GGTCTCTCCGGCCGCTTGGGTGGAGAGGCTATTCGGCTATGACTGGGCACAACAGACAATCGG
CTGCTCTGATGCCGCCGTGTTCCGGCTGTCAGCGCAGGGGCGCCCGGTTCTTTTTGTCAAGAC
CGACCTGTCCGGTGCCCTGAATGAAGTGCAGGACGAGGCAGCGCGGCTATCGTGGCTGGCCA
CGACGGGCGTTCTTGCGCAGCTGTGCTCGACGTTGTCACTGAAGCGGGAAGGGACTGGCTG-

FIGURE 15A

CTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCATCTCACCTTGCTCCTGCCGAGAAAAGTA
TCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTCGAC
CACCAAGCGAAACATCGCATCGAGCGAGCACGTA CTGGATGGAAGCCGGTCTTGTCGATCA
GGATGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCCGA ACTGTTCCGCCAGGCTCAAGG
CGCGCATGCCCCGACGGCGAGGATCTCGTCGTGACCCATGGCGATGCCTGCTTGCCGAATATCA
TGGTGGA AAAATGGCCGCTTTTCTGGATT CATCGACTGTGGCCGGCTGGGTGTGGCGGACCGCT
ATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGAC
CGCTTCCTCGTGCTTTACGGTATCGCCGCTCCCGATTTCGCAGCGCATCGCCTTCTATCGCCTTC
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GCTGGTTCTTTCCGCCTCAGAAGGTACACAGGCGAAAATTGTAAGCGTTAATATTTTGTAAAA
TTCGCGTTAAATTTTTGTAAATCAGCTCATTTTTTAACCAATAGGCCGAAATCGGCAAAATC
CCTTATAAATCAAAAGAATAGACCGAGATAGGGTTGAGTGTGTTCAGTTTGGAACAAGAG
TCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATG
GCCCCAC

FIGURE 15B

GATCTTCAATATTGGCCATTAGCCATATTATTTCATTGGTTATATAGCATAAATCAATATTGGCT
ATTGGCCATTGCATACGTTGTATCTATATCATAATATGTACATTTATATTGGCTCATGTCCAAT
ATGACCGCCATGTTGGCATTGATTATTGACTAGTTATTAATAGTAATCAATTACGGGGTCATT
AGTTTCATAGCCCATATATGGAGTTCCGCGTTACATAACTTACGGTAAATGGCCCGCTGGCTG
ACCGCCCAACGACCCCCGCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAAT
AGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCCACTTGGCAGTACA
TCAAGTGTATCATATGCCAAGTCCGCCCCCTATTGACGTCAATGACGGTAAATGGCCCGCTG
GCATTATGCCCAGTACATGACCTTACGGGACTTTCTACTTGGCAGTACATCTACGTATTAGT
CATCGCTATTACCATGGTGATGCGTTTTTGGCAGTACACCAATGGGCGTGGATAGCGGTTGA
CTCACGGGGATTTCOAAGTCTCCACCCCATTGACGTCAATGGGAGTTTGTTTTGGCACCAAAA
TCAACGGGACTTTCCAAAATGTCGTAACAACTGCGATCGCCCCGCCCGTTGACGCAATGGG
CGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTTgtttagtgaacctCAGATCACTAGAA
GCTTTATTGCGGTAGTTTATCACAGTTAAATTGCTAACGCAAGTCAGTGCTTCTGACACAACAG
TCTCGAACTTAAGCTGCAGTGAATCTCTTAAatocaccatggctacagGTGAGTACTCGCTACCTTAAG
AGAGGCCTATCTGGCCAGTTAGCAGTCGAAGAAAGAAAGTTAAGAGAGCCGAAACAAGCGCT
CATGAGCCCCGAAGTGGCGAGCCCCGATCTTCCCCATCGGTGATGTGCGCGATATAGGCGCCAG
CAACCGCACCTGTGGCGCCGGTGATGCCGGCCACGATGCGTCCGCGGTAGAGGATCCACAGG
ACGGGTGTGGTCCCATGATCGCGTAGTCGATAGTGGCTCCAAGTAGCGAAGCGAGCAGGAC
TGGGCGGCGGCCAAAGCGGTCCGACAGTGTCTCCGAGAACGGGTGCGCATAGAAATTGCATCA
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TACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGT
AGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTT
CAGCCCGACCGCTGCGCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGAC
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GAAAGTCCCCAGGCTCCCCAGCAGGCAGAAAGTATGCAAAGCATGCATCTCAATTAGTCAGCA
ACCATAGTCCCGCCCCTAACTCCGCCCCTAACTCCGCCCAGTTCCGCCCATTCT
CCGCCCCATGGCTGACTAATTTTTTTTATTTATGAGAGGCGGAGGCCGCTCGGCCCTCTGAG
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GCAGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTCCGCTATGACTGGGCACAACAGACAAT
CGGCTGCTCTGATGCCGCCGTGTTCCGGCTGTACCGCAGGGGCGCCCGGTTCTTTTTGTCAA
GACCGACCTGTCCGGTGCCCTGAATGAACTGCAGGACGAGGCAGCGCGGCTATCGTGGCTGG
CCACGACGGGCGTTCCITGCGCAGCTGTGCTCGACGTTGTCACTGAAGCGGGAAGGGAAGTGG
CTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCTCTCACCTTGCTCCTGCCGAGAAA -

Figure 16A

GTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTC
GACCAACCAAGCGAAACATCGCATCGAGCGAGCACGTA CTCCGGATGGAAGCCGGTCTTGTCGA
TCAGGATGATCTGGACGAAGAGCATCAGGGGGCTCGCGCCAGCCGA ACTGTTCCGCCAGGCTCA
AGGCGCGCATGCCCGACGGCGAGGATCTCGTCTGTGACCCATGGCGATG CCTGCTTGCCGAAT
ATCATGGTGGAAAAATGGCCGCTTTTCTGGATT CATCGACTGTGGCCGGCTGGGTGTGGCGGAC
CGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGC
TGACCGCTTCCTCGTGCTTTACGGTATCGCCGCTCCCGATT CGCAGCGCATCGCCTTCTATCGC
CTTCTTGACGAGGccaTTCTgctggatggCTacAGGTcgagccctggcgctcgtagtagtgatgaaccaggttatgacctgattia
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TGCTGACTAATTGAGATGCATGCTTTGCATACTTCTGCCTGCTGGGGAGCCTGGGGACTTTCC
ACACCCTAACTGACACACATTCCACAGCTGGTTCITTTCCGCCTCAGAAGGTACACAGGCGAAAA
TTGTAAGCGTTAATATTTTGTAAAAATTTCGCGTTAAATTTTGTAAATCAGCTCATTTTTTAA
CCAATAGGCCGAAATCGGCCAAAATCCCTTATAAATCAAAAGAATAGACCGAGATAGGGTTGA
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CGAAAAACCGTCTATCAGGGCGATGGCCAC

FIGURE 16B

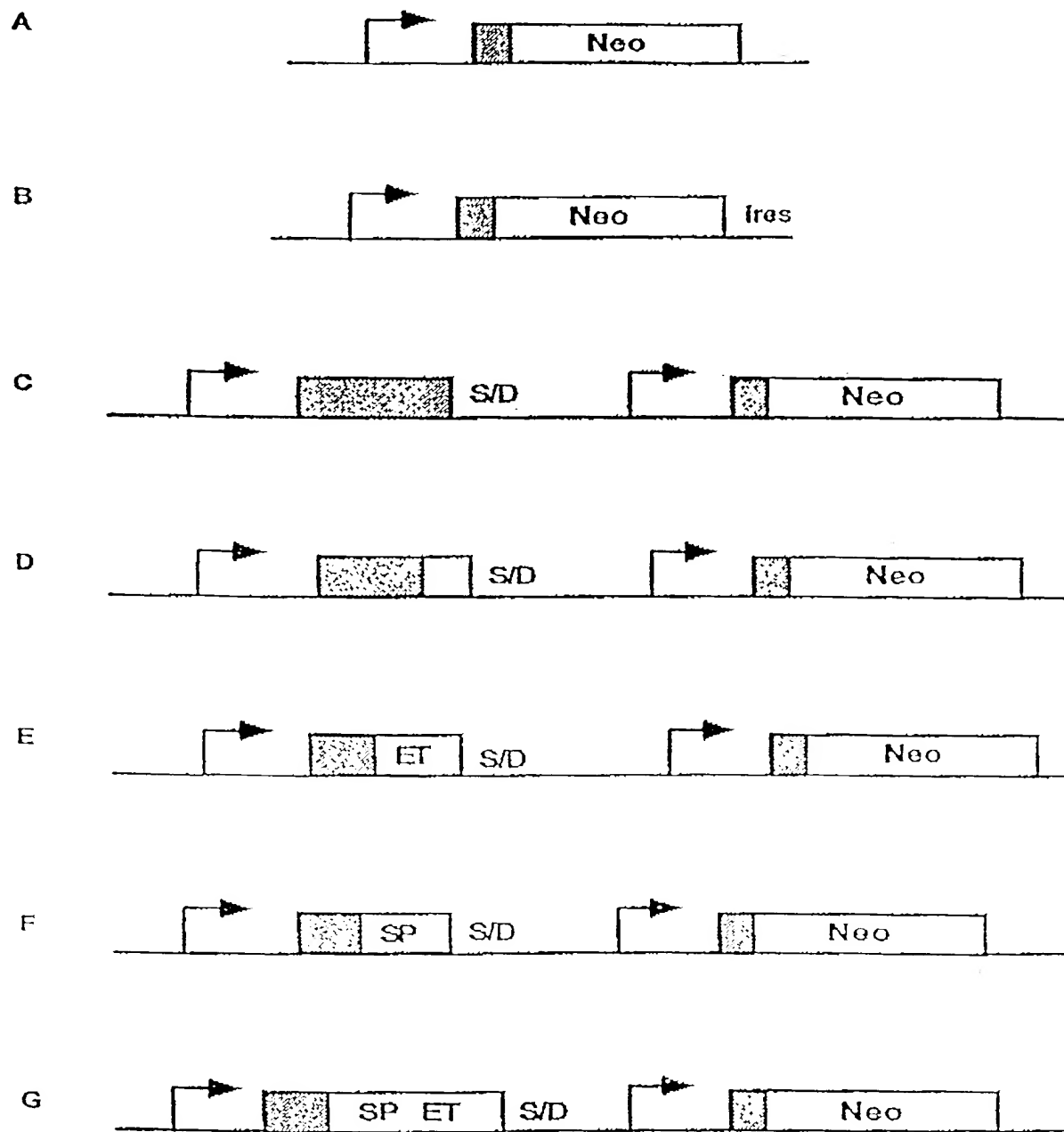


Figure 17

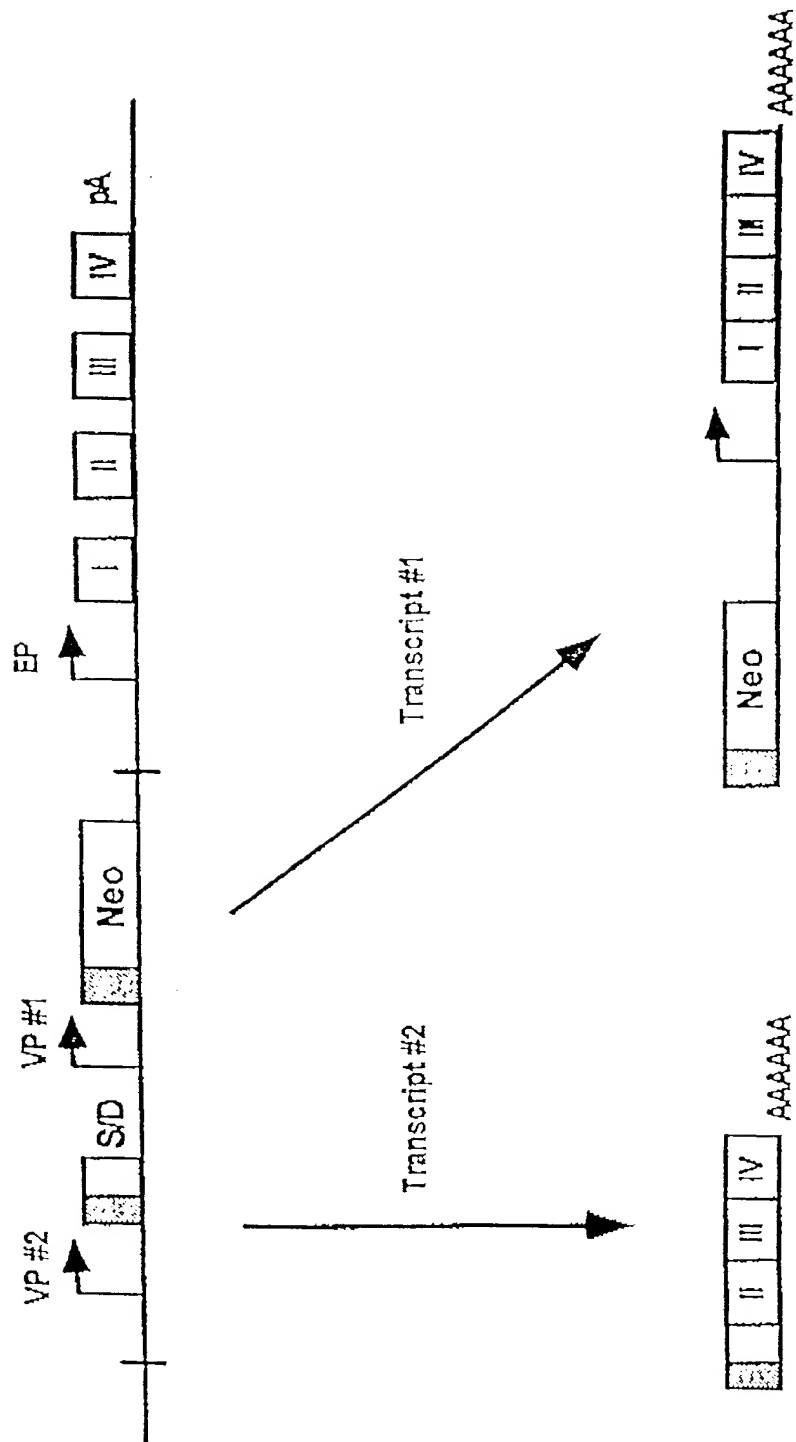


Figure 18

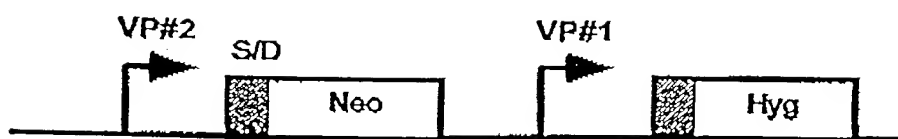


Figure 19

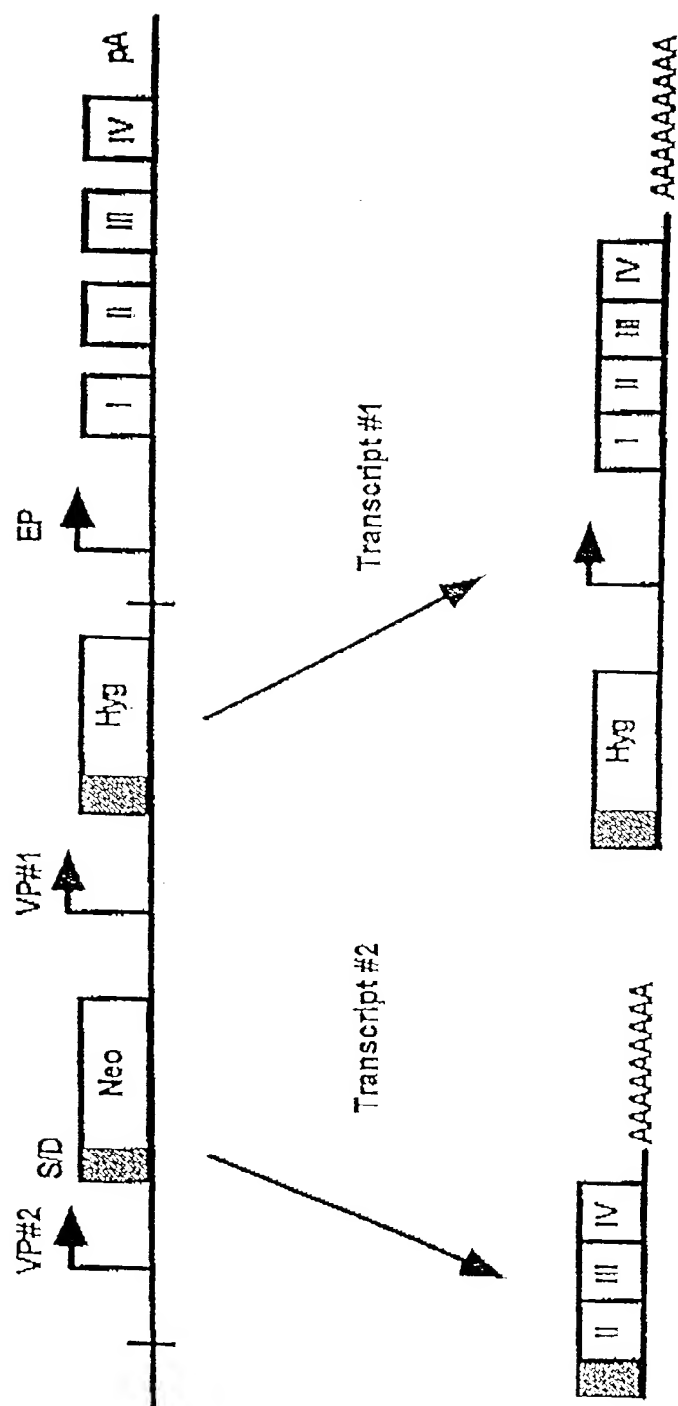


Figure 20A

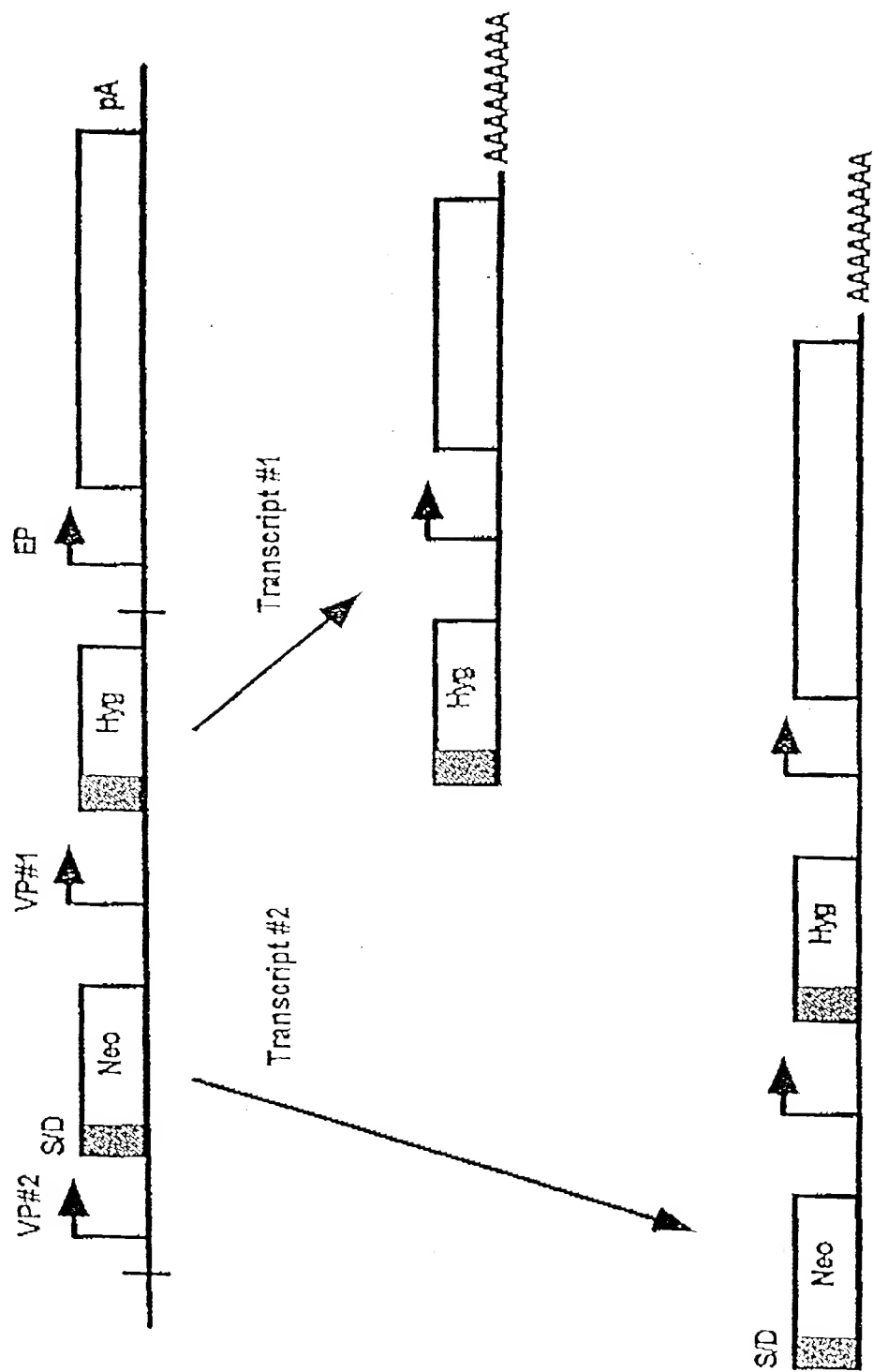


Figure 20B

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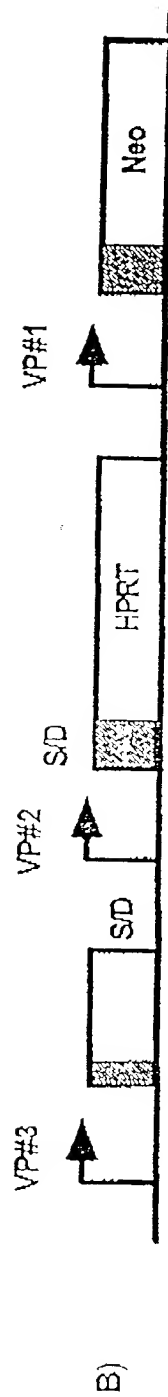
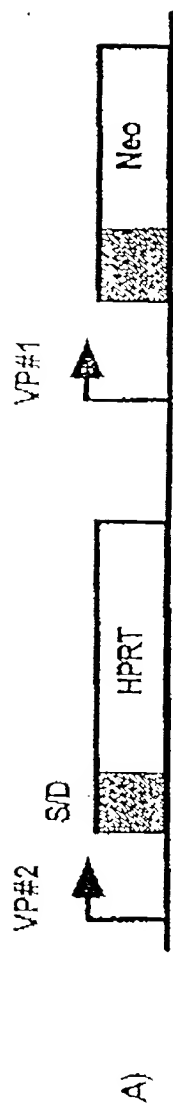


Figure 21

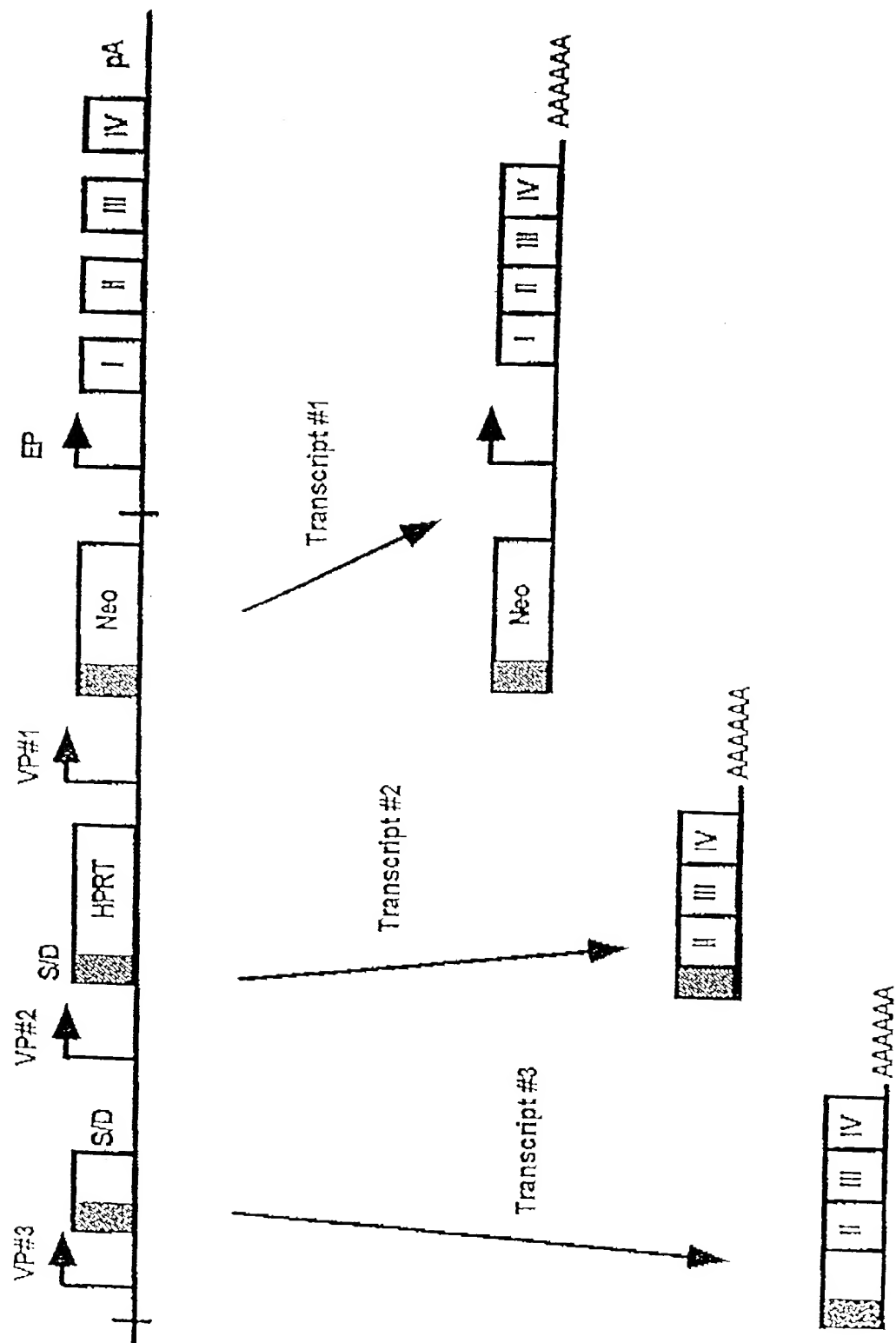
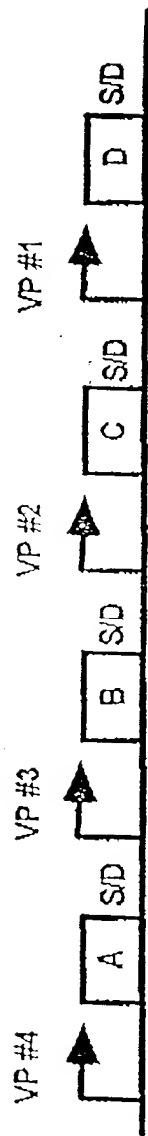


Figure 22



A) Exon A and Flanking Intron	5' UTR	ACCCAG	GTGATG	Vector Intron
B) Exon B and Flanking Intron	5' UTR	ACCATGCCAG	GTGATG	Vector Intron
C) Exon C and Flanking Intron	5' UTR	ACCATGCCAG	GTGATG	Vector Intron
D) Exon D and Flanking Intron	5' UTR	ACCATGCCAG	GTGATG	Vector Intron

Figure 23

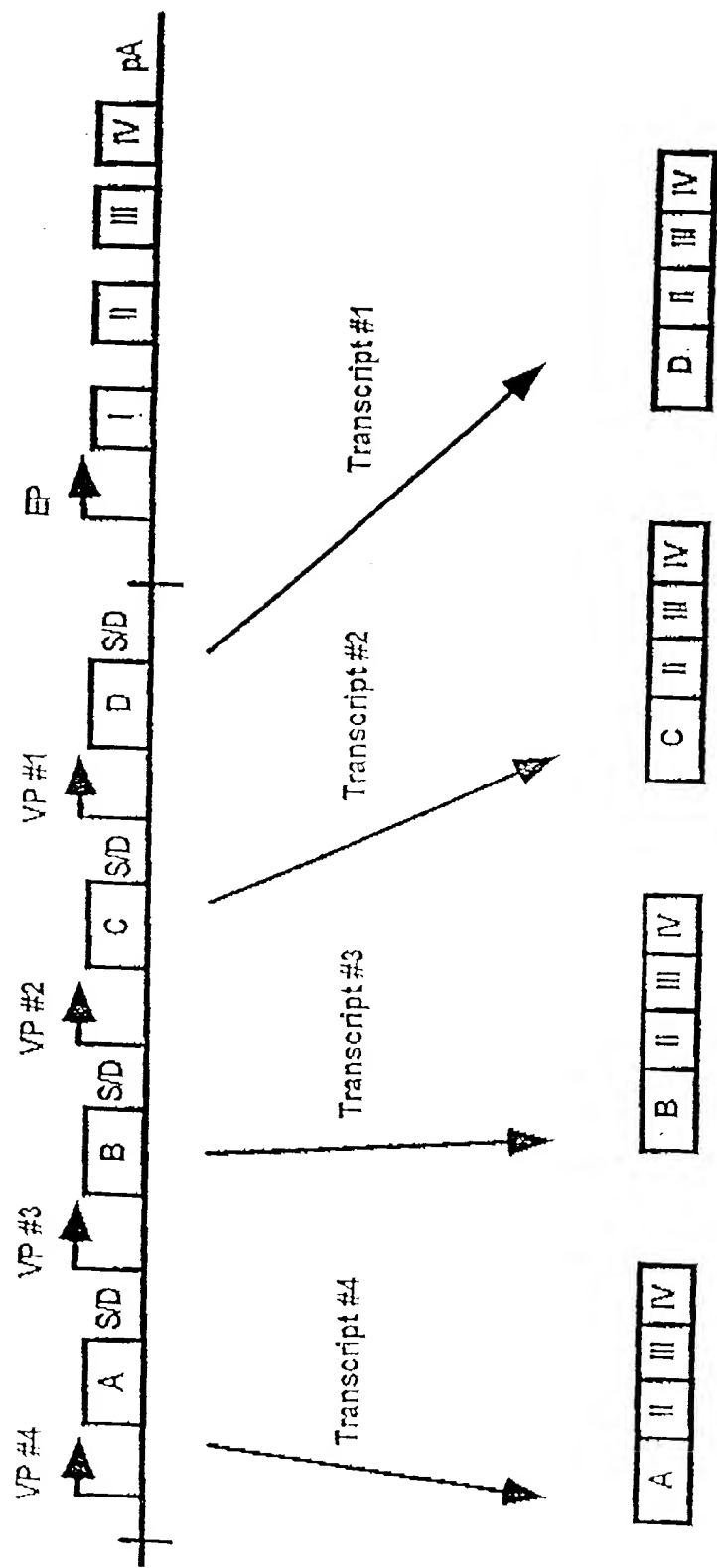


Figure 24

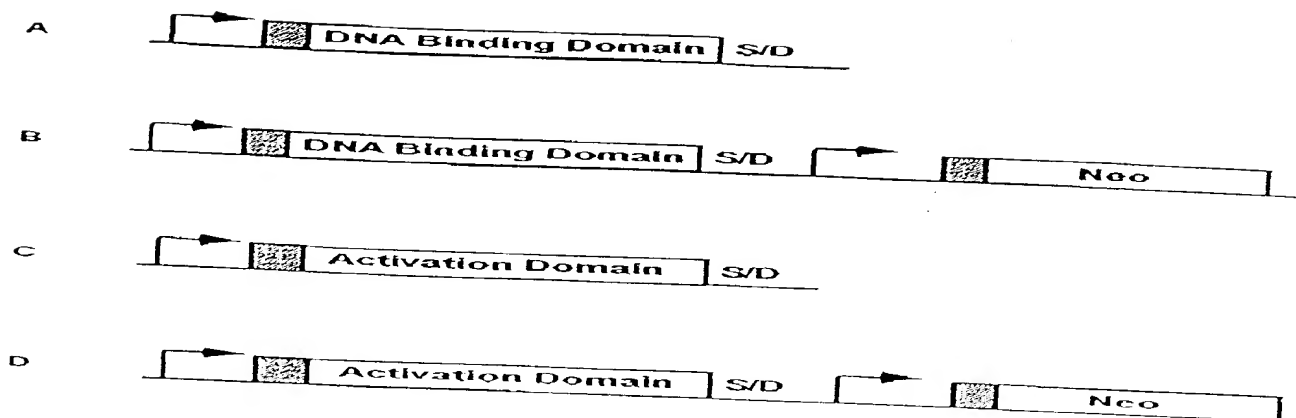


FIGURE 25

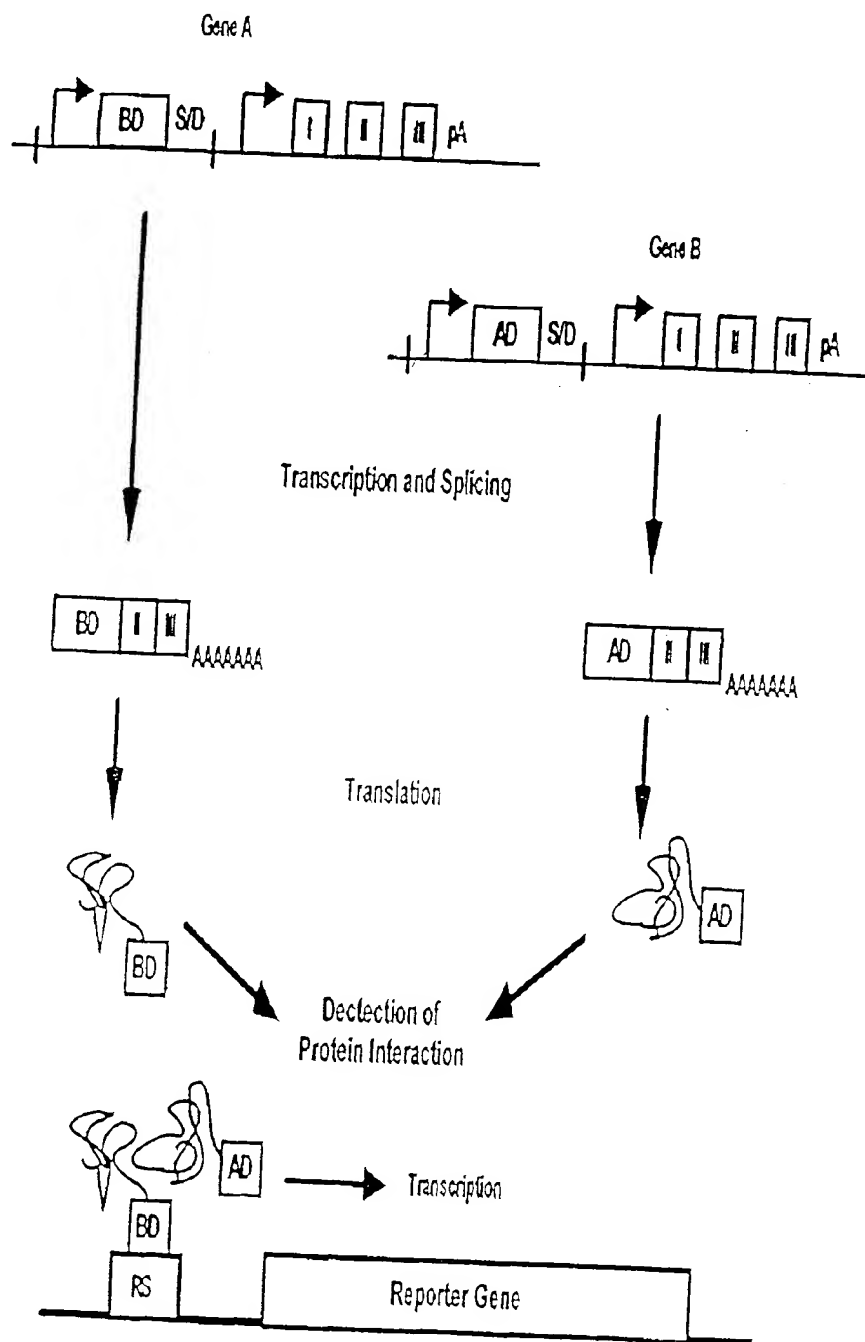


Figure 26

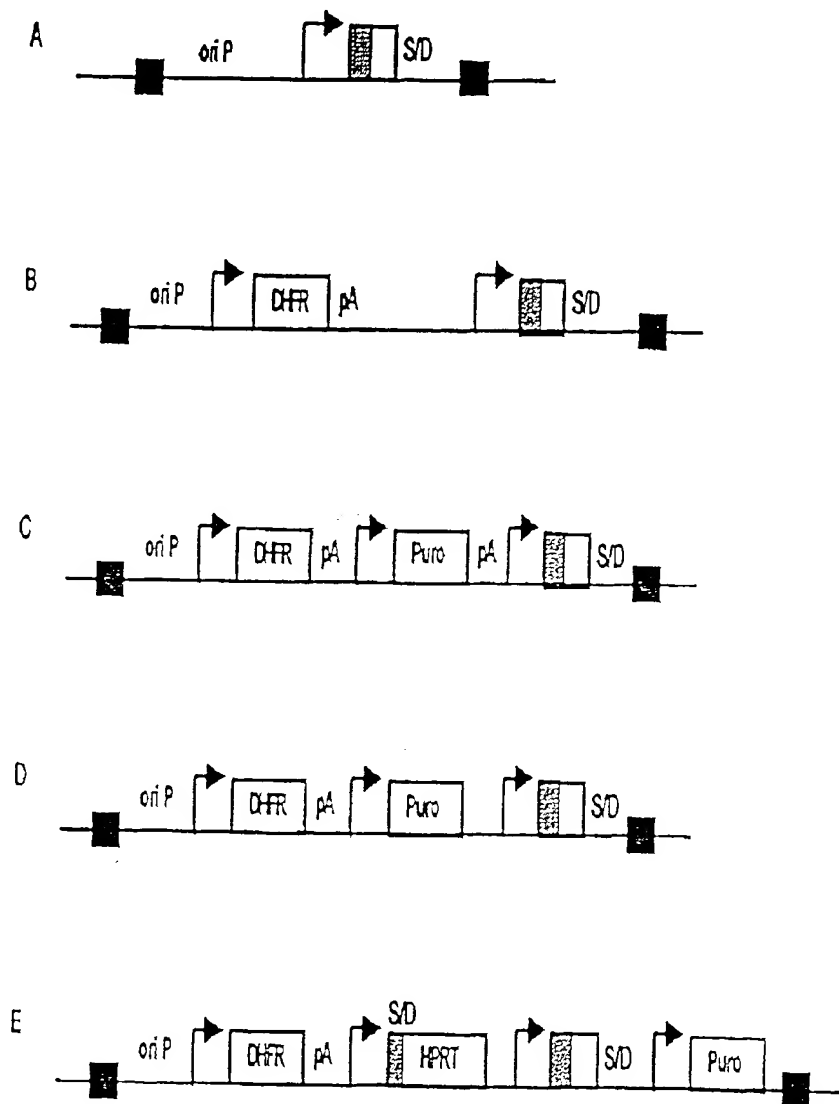


FIGURE 77

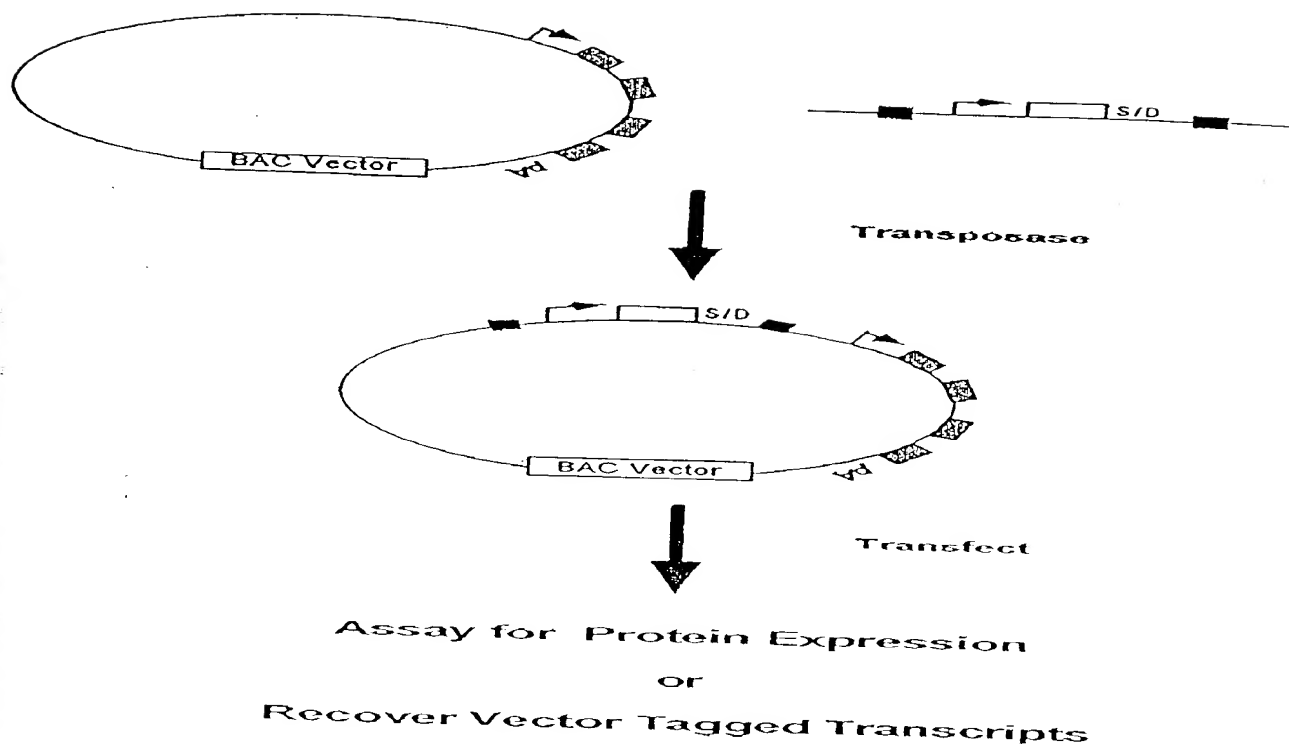


FIGURE 28

CACCTAAATTGTAAGCGTTAATATTTTGTAAATTCGCGTTAAATTTTGT
TAAATCAGCTCATTTTTTAACCAATAGGCCGAAATCGGCAAAATCCCTTAT
AAATCAAAAGAATAGACCGAGATAGGGTTGAGTGTTGTTCCAGTTTGGAA
CAAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGCGAAAAA
CCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCTAATCAAGTT
TTTTGGGGTTCGAGGTGCCGTAAAGCACTAAATCGGAACCTAAAGGGAGC
CCCCGATTTAGAGCTTGACGGGGAAAGCCGGCGAACGTGGCGAGAAAGGA
AGGGAAGAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCG
GTCACGCTGCGCGTAACCACCACACCCGCCGCGCTTAATGCGCCGCTACAG
GGCGCGTCCCATTTCGCCATTACGGCTGCGCAACTGTTGGGAAGGGCGATC
GGTGCGGGCCTCTTCGCTATTACGCCAGCTGGCGAAAGGGGGATGTGCTG
CAAGGGCGATTAAAGTTGGGTAAACGCCAGGGTTTTCCCAGTCACGACGTTGTA
AAACGACGGCCAGTGAATTGTAATACGACTCACTATAGGGCGAATTGGGT
ACaattcaattcgtcgacctcgaaattctaccggtaggggaggcgcttttcccaaggcagtcctggagcatgcgcttag
cagccccgctgggcacttggcgctacacaagtggcctctggcctcgcacacattccacatccaccggtagggcgcaacc
ggctccgttcttgggtggcccttcgcgccacctctactcctccctagtccaggaagttccccccgccccgcantcgcg
tcgtgcaggacgtgacaaatggaaatagcacgtctcactagtctcgtgcagatggacaagcaccgctgagcaatggagc
gggtaggcctttggggcagcgcccaatagcagcttctccttcgcttctgggctcagaggctgnaagggtgggtcc
gggggcgggctcagggcgggctcagggcgggcgggcgcccgaaggtcctccggaggcccgcatctgcacg
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ATAAATCAATATTGGCTATTGGCCATTGCATACGTTGTATCTATATCATAAT
ATGTACATTTATATTGGCTCATGTCCAATATGACCGCCATGTTGGCATTGA
TTATTGACTAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGC
CCATATATGGAGTTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGC
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ATAGTAACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTA
CGGTAAACTGCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTCCG
CCCCCTATTGACGTCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAG
TACATGACCTTACGGGACTTTCCCTACTTGGCAGTACATCTACGTATTAGTC
ATCGCTATTACCATGGTGATGCGGTTTTGGCAGTACACCAATGGGCGTGGA
TAGCGGTTTGACTCACGGGGATTTCGAAGTCTCCACCCCATGACGTCAAT
GGGAGTTTGTGTTTGGCACCAAAATCAACGGGACTTTCCAAAATGTCGTAAC
AACTGCGATCGCCCCGCCCGTTGACGCAAATGGGCGGTAGGCGGTGACGG
TGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTCAGATCACTAGA
AGCTTTATTGCGGTAGTTTATCACAGTTAAATTGCTAACGCAGTCAGTGCT
TCTGACACAACAGTCTCGAACTTAAGCTGCAGTGAAGTCTCTTaatataaccaccgctac
aggtgagtactcgGATCTGCTACCTTAAGagaggcctatctggccagttagcagtcgaagaaagaagtttaa
GAGAGCCGAAACAAGCGCTCATGAGCCCGAAGTGGCGAGCCCGATCTTCC
CCATCGGTGATGTGCGCGATATAGGCGCCAGCAACCGCACCTGTGGCGCC-

Figure 29A

GGTGATGCCGGCCACGATGCGTCCGGCGTAGAGGATCCACAGGACGGGTG
TGGTCGCCATGATCGCGTAGTCGATAGTGGCTCCAAGTAGCGAAGCGAGC
AGGACTGGGCGGCGGCCAAAGCGGTTCGGACAGTGCTCCGAGAACGGGTGC
GCATAGAAAATTGCATCAACGCATATAGCGCTAGATCCTTGCTAGAGTCGAG
GCCGCCACCGCGGTGGAGCTCCAGCTTTTGTTCCTTTAGTGAGGGTTAAT
TTCGAGCTTGGCGTAATCATGGTCATAGCTGTTTCCTGTGTGAAATTGTTA
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CCTGGGGTGCCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTCAC
TGCCCGCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCG
GCCAACGCGCGGGGAGAGGCGGTTTTCGTATTGGGCGCTCTTCCGCTTCCT
CGCTCACTGACTCGCTGCGCTCGGTTCGTTCGGCTGCGGCGAGCGGTATCAG
CTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCA
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ACCCTGCCGCTTACCGGATACCTGTCCGCTTTTCTCCCTTCGGGAAGCGTG
GCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTT
CGTCCAAGCTGGGCTGTGTGCACGAACCCCCCGTTCAGCCCGACCGCTGC
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TAGGGGTTCCGCGCACATTTCCCCGAAAAGTGC

Figure 79b

GATCTTCAATATTGGCCATTAGCCATATTATTCATTGGTTATATAGCATAAA
 TCAATATTGGCTATTGGCCATTGCATACGTTGTATCTATATCATAATATGTA
 CATTATATTGGCTCATGTCCAATATGACCGCCATGTTGGCATTGATTATTG
 ACTAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATAT
 ATGGAGTTCGCGGTTACATAACTTACGGTAAATGGCCCCGCTGGCTGACCG
 CCCAACGACCCCCGCCATTGACGTCAATAATGACGTATGTTCCCATAGTA
 ACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAA
 ACTGCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTCCGCCCCCT
 ATTGACGTCAATGACGGTAAATGGCCCCGCTGGCATTATGCCCAGTACATG
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 GTTTGACTCACGGGGATTTCCAAGTCTCCACCCCATTGACGTCAATGGGAG
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Figure 30A

TTTTTGTGGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAA
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CAGGAAATTGTAAGCGTTAATAATTGAGAAGAACTCGTCAAGAAGGCGAT
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GCGAACAGTTCGGCTGGCGCGAGCCCTGATGCTCTTCGTCCAGATCATCC
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Figure 30C

GATCTTCAATATTGGCCATTAGCCATATTATTCATTGGTTATATAGCATAAA
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Figure 31A

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FIGURE 31B

TTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAA
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Figure 31C

GATCTTCAATATTGGCCATTAGCCATATTATTCATTGGTTATATAGCATAAA
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acggttggtatataccagtatttttctccatttagcttcttagctcctgaaaatctcgataactcaaaaaatagcccggttag
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CGCGCCgctctcctggctaggagtcacgtagaaaggactaccgacgaaggaaacttgggtcgccggtgtgttctgtat-

Figure 32A

atggaggtagtaagacctccctttacaacctaaggcgagggaactgcccttgctattccacaatgtcgtcttacaccattgagt
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 ttatgggccccattggcgtggagccccgttaattttcgggggtgttagagacaaccagtgaggtcgctgctgtcggcgt
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 GTCGATAGTGGCTCCAAGTAGCGAAGCGAGCAGGACTGGGCGGCGGCCAA
 AGCGGTTCGGACAGTGTCTCCGAGAACGGGTGCGCATAGAAATTGCATCAAC
 GCATATAGCGCTAGATCCTTGCTAGAGTTCGAGATCTGTCTGAGCCATGTGAG
 CAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCG
 TTTTTCATAGGCTCCGCCCCCCTGACGAGCATCACAAAAATCGACGCTCA
 AGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCC
 CCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCTGCCGCTTACCGG
 ATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCA
 CGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGT
 GTGCACGAACCCCCCGTTTCAGCCCGACCGCTGCGCCTTATCCGCTAACCTAT
 CGTCTTGAGTCCAACCCCGTAAAGACACGACTTATCGCCACTGGCAGCAGCC
 ACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGT-

FIGURE 32B

TCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGGACAGTATTTGGTA
TCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTT
GATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGCAAGC
AGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTT
CTACGGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTG
GTCATGAGATTATCAAAAAGGATCTTCACCTAGATCCTTTTATCGGTGTGA
AATACCGCACAGATGCGTAAGGAGAAAAATACCGCATCAGGAAATTGTAAG
CGTTAATAATTTCAGAAGAACTCGTCAAGAAGGCGATAGAAGGCGATGCGC
TGCGAATCGGGAGCGGCGATAACCGTAAAGCACGAGGAAGCGGTACAGCCCA
TTCGCCGCCAAGCTCTTCAGCAATATCACGGGTAGCCAACGCTATGTCCTG
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CGGCTTCCATCCGAGTACGTGCTCGCTCGATGCGATGTTTCGCTTGGTGGT
CGAATGGGCAGGTAGCCGGATCAAGCGTATGCAGCCGCCGCATTGCATCA
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GCCGCGCTGCCTCGTCTTGACAGTTCATTACAGGGCACCGGACAGGTGGTCT
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TCAGAGCAGCCGATTGTCTGTTGTGCCAGTTCATAGCCGAATAGCCTCTCC
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TTAAATTTTGTAAATCAGCTCATTTTTTAACCAATAGGCCGAAATCGGC
AAAATCCCTTATAAATCAAAAAGAATAGACCGAGATAGGGTTGAGTGTGTT
CCAGTTTGGAAACAAGAGTCCACTATTAAGAACGTGGACTCCAACGTCAAA
GGGCGAAAAACCGTCTATCAGGGCGATGGCCAC

FIGURE 320

GATCTTCAATATTGGCCATTAGCCATATTATTCATTGGTTATATAGCATAAA
TCAATATTGGCTATTGGCCATTGCATACGTTGTATCTATATCATAATATGTA
CATTTATATTGGCTCATGTCCAATATGACCGCCATGTTGGCATTGATTATTG
ACTAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATAT
ATGGAGTTCGCGTTACATAACTTACGGTAAATGGCCCCGCTGGCTGACCG
CCCAACGACCCCCGCCATTGACGTCAATAATGACGTATGTTCCCATAGTA
ACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAA
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Figure 33A

aactgactgaaatgcctcaaaatgttctttacgatgccattgggataatacaacgggtggtatatccagtgattttttctccatttt
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gagltgagcggttccgggtgtggcgcgagcaacagatggaaggcctcctggcgccgcaccgggccccaggagcccg
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cctgacgcccgcacgacccgcagcgcccgaaggagcgacgaccccatgcatgagtgactggcaggtggcagg
taaglatcaaggtagcGCCCCCTAACCTGGTTGCTGACTAATTGAGATGCATGCTTT
GCATACTTCTGCCTGCTGGGGAGCCTGGGGACTTTCCACACCCCTAACTGAC
ACACATTCCACAGCTGGTTCTTTCCGCCTCAGAAGGTACACAGGCGGAAATI
GTAAGCGTTAATATTTTGTAAAATTTCGCGTTAAATTTTGTAAATCAGC-

Figure 330

TCATTTTTTAACCAATAGGCCGAAATCGGCAAAATCCCTTATAAATCAAAA
GAATAGACCGAGATAGGGTTGAGTGTTGTTCCAGTTTGGAACAAGAGTCC
ACTATTAAAGAACGTGGACTCCAACGTCAAAGGGCGAAAAACCGTCTATC
AGGGCGATGGCCCAC

FIGURE 33D

tcaacgacaggagcacgatcatgcgcacccgtggccaggacccaacgctgcccagatgcgcccgtgcccgtgctgg
agatggcgggacgcgatggatgttctgccaaaggttggttgccgattcacagttctccgcaagaattgattggctccaatt
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Figure 34A

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Figure 34B

GATCTTCAATATTGGCCATTAGCCATATTATTCATTGGTTATATAGCATAAA
TCAATATTGGCTATTGGCCATTGCATACGTTGTATCTATATCATAATATGTA
CATTATATTGGCTCATGTCCAATATGACCGCCATGTTGGCATTGATTATTG
ACTAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATAT
ATGGAGTTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCG
CCCAACGACCCCCGCCCATTGACGTCAATAATGACGTATGTTCCCATAGTA
ACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAA
ACTGCCCCTTGGCAGTACATCAAGTGTATCATATGCCAAGTCCGCCCCCT
ATTGACGTCAATGACGGTAAATGGCCCGCCTGGCATTATGCCAGTACATG
ACCTTACGGGACTTTCTACTTGGCAGTACATCTACGTATTAGTCATCGCT
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GTTTGACTCACGGGGATTTCCAAGTCTCCACCCCATGACGTCAATGGGAG
TTTGTTTTGGCACCAAAATCAACGGGACTTTCCAAAATGTCGTAACAACGTG
CGATCGCCCCGCCCGTTGACGCAAATGGGCGGTAGGCGTGTACGGTGGGA
GGTCTATATAAGCAGAGCTcggttagtgaaccgtcagatcactgaattctgacgacactactgattaacggc
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CGGTGATGTGCGCGATATAGGCGCCAGCAACCGCACCTGTGGCGCCGGTG
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CGCCATGATCGCGTAGTCGATAGTGGCTCCAAGTAGCGAAGCGAGCAGGA
CTGGGCGGGCGGCCAAAGCGGTGCGACAGTGCTCCGAGAACGGGTGCGCAT
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Figure 35A

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GCAACCAGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAAGTATGCA
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CATCCCGCCCCCTAACTCCGCCCAGTTCCGCCCATTTCTCCGCCCATGGCTG
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CTGTCATCTCACCTTGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCA
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FIGURE 35B

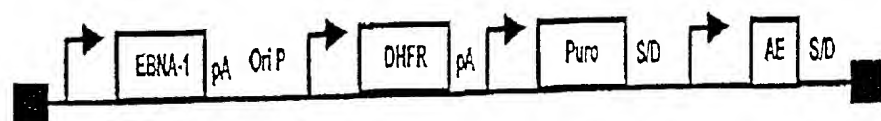


FIGURE 36

GATCTTCAATATTGGCCATTAGCCATATTATTCATTGGTTATATAGCATAAA
 TCAATATTGGCTATTGGCCATTGCATACGTTGTATCTATATCATAATATGTA
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 ACTAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATAT
 ATGGAGTTCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCG
 CCAACGACCCCCGCCATTGACGTCAATAATGACGTATGTTCCCATAGTA
 ACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAA
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 ATTGACGTCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATG
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 ATTACCATGGTGTATGCGGTTTTGGCAGTACACCAATGGGCGTGGATAGCG
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 ACAACTATCGATTTCCACACATTATACGAGCCGATGTTAATTGTCAACAGC
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Figure 37A

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 TACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACC
 CTGCCGCTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCG
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 CCAAGCTGGGCTGTGTGCACGAACCCCCGTTACCCCGACCGCTGCGCCT
 TATCCGGTAACATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGC
 CACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGC
 GGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAG
 GACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAG
 AGTTGGTAGCTCTTGATCCGGCAAAACAAACCCGCTGGTAGCGGTGGTT-

Figure 37B

TTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAA
 GATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGAAAACTCA
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 CTTTTATCGGTGTGAAATACCGCACAGATGCGTAAGGAGAAAATACCGCAT
 CAGGAAATTGTAAGCGTTAATAATTGAGAAGAACTCGTCAAGAAGGCGAT
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 AACGCTATGTCCTGATAGCGGTCCGCCACACCCAGCCGGCCACAGTCGATG
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 TTCTTTCCGCCTCAGAAGGTACACAGGGCGAAATTGTAAGCGTTAATATTTT
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 GTTGAGTGTGTTCCAGTTTGGAAACAAGAGTCCACTATTAAAGAACGTGGA
 CTCCAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCAC

Figure 37C